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INVESTIGATIO NOVA

ORBITAE A MERCURIO

CIRCA SOLEM DESCRIPTAE

ACCEDUNT

TABULAE PLANETAE

EX

ELEMENTIS RECENS REPERTIS

ET

THEORIA GRAVITATIS

ILLUSTR. DE LAPLACE

CONSTRUCTAE

AUCTORE

BERNHARDO DE LINDENAU.

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INVESTIGATIO NOVA
ORBITAE A MERCURIO
CIRCA SOLEM DESCRIPTAE.

Quamquam inde a superiore saeculo medio astronomorum plures in primis Lalande, Oriani, Triesnecker, Wurm, Delambre, &c. &c. de orbitae Mercurii theoria praeclare sunt promeriti: tamen nova hujusce rei tractatio, duplici de causa, auctis quae ad hanc indagationem facere possunt auxiliis, scientiae commodis inservire videbatur. Etenim in omnibus disquisitionibus prioribus fere semper non nisi observati Mercurii transitus ad orbitam definiendam fuerant adhibiti, perturbationum aequationibus, quas postea Oriani et Laplace penitus excusserant plerumque neglectis. Atqui licet non possit dubitari, loca Mercurii heliocentrica, e transitibus derivanda, praecipuum cujuslibet theoriae Mercurii fundamentum esse debere: tamen bonarum observationum geocentricarum usus huic rei eo accommodatior est, quum omnes illi transitus in duobus tantum orbitae punctis locum habeant, atque propterea minore cum perspicuitate et securitate totam ellipsin determinare possint. Quod si hanc ob causam elementorum Mercurii quae adessent, emendatio cum aliqua similitudine veri exspectari posset: nova theoriae Mercurii tractatio, quae perturbationum theoriam, ab ill. Laplace propositam, adhiberet, aliam promittebat utilitatem theoreticam, quae nos in primis ad hoc negotium suscipiendum invitavit. Namque satis constat inter astronomos, quam incerta etiam nunc sint praecepta, quibus in definiendis planetarum satellitibus carentium, massis utimur; omissa conclusionum analogicarum futilitate, aliam ac meliorem in hac re me-

thodum, quam comparationem perturbationum observatarum, cum iis, quas theoria exhibet, non adhibendam esse, nullus est qui dubitet. Quamvis jam hoc modo Veneris Martisque massa fuerit definita: tamen optabile est, has determinationes confirmari, quum in hujusmodi quaestionibus ea requiritur observationum diligentia et cura, quae in singulis imaginaria foret, atque magno tantum earum numero congesto effici possit. Praecipue autem in toto astronomiae systemate accurata massae Veneris, cognitio maximi momenti est quum ex hac in primis pendeat saecularis obliquitatis deminutio. In Mechanica coel. LAPLACE illam ponit $= \frac{1}{383137}$; ex Solis autem observationibus clar. DELAMBRE pro hac quantitate invenit correctionis coefficientem $= 1{,}0743$, dum contra obliquitatis deminutio, per proximos L. annos observata, factorem unitate minorem postulare videbatur. Nuperrime tamen ill. LAPLACE monuit, hanc paullo minorem saecularem obliquitatis deminutionem, ex observationibus saeculi praeteriti emergentem, a periodica quadam, sed adhuc incognita aequatione proficisci posse.

Jam vero Mercurii theoria plura offert adjumenta, novas hujus rei determinationes exquirendi quum Veneris massa praecipue, adeoque propemodum sola, Mercurii motum, alioquin tantum non mere ellipticum, perturbet. Quo circa disquisitionis meae consilium statim ab initio haec duo maxime amplectebatur:

1. *Determinationem massae Veneris e periodicis atque saecularibus elementorum Mercurii variationibus, per observationes datis.*

2. *Determinationem orbitae Mercurii heliocentricae, in qua differentia locorum et observatorum et ex elementis deductorum, minima est.*

Jam quatenus isti consilio satisfacere mihi contigerit, astronomi ex iis, quae hic oblaturus sum, judicare poterunt.

Elementa, de quorum correctione indaganda hic agitur, haec erant;

Epocha long. med. ☿ 1750 sub merid. Seeberg.							8^S	13°	5′	24,″0 sec. TRIESNECKER
Aphelium	1750	. . . . .					8	13	33	29, 0 —
Excentricitas . . .	1800	. . . . .					0,2056528			—
Motus medius annuus ☿	. . . . .						1^S	23°	43′	3,″5 —
Nodus 1750	. . . . .						1	15	20	43, 0 sec. LALANDE
Inclinatio 1800	. . . . .							7°	0′	0′ —
Variatio annua aphelii	. . . . .						+	55,″74		sec. LAPLACE
– –	Nodi	. . . . .					+	42, 54		—
– –	Excentricitatis	. . . . .					+	0,″00684		—
– –	Inclinationis	. . . . .					+	0, 1722		—

Novae disquisitionis finis indagendae rei viam indicabat. Primo omnes Mercurii transitus, inde ab anno 1631 observati, denuo reducti et discussi, atque duplici consilio a me accommodati sunt, postquam praeliminaris observatorum Mercurii locorum heliocentricorum comparatio cum elementis modo commemoratis ostenderat, omnes, quae fieri possent, emendationes exiguo minutarum secundarum numero includi debere. Quo quidem modo nonnulla, quae in disquisitionibus postea institutis supposueramus, confirmata sunt atque stabilita. Prima, in qua hi transitus adhibebantur, investigatio eo spectabat, ut nodus et annua ejus variatio determinaretur; unde prima correctionis assumtae Veneris massae aequatio consecuta est. Ad quod negotium ii tantum adhiberi poterant transitus, in quibus observationis modus accuratam latitudinis geocentricae determinationem concedebat.

Dein quod omnes Mercurii transitus in eodem nodo, proxime in iisdem orbitae punctis, locum haberent ac necessario habere debeant, fieri potuit, ut ex his, sine absoluta epochae, aphelii et excentricitatis cognitione, accurata determinatio motus medii annuaeque variationis aphelii constitueretur, quum illa transituum Mercurii proprietas efficiat, ut duarum longitudinum heliocentricarum differentia maxima ex parte, non nisi functio horum amborum elementorum sit. Aphelii motus hinc deductus, et cum illo quem theoria docet comparatus, alteram suppeditabat aequationem ad determinandam Veneris massam, Elementa elliptica ipsa, *motus medius*, *aphelium*, *epocha*, *excentricitas et correctionis factor* pro assumta Veneris massa, partim ex locis heliocentricis, per transitus datis, partim ex centum geocentricis Mercurii longitudinibus petebantur. Aequationes conditionis inde deductae, et per methodum minimorum quadratorum tractatae, incognitarum valores praebuerunt, unde et tertia ad massae Veneris determinationem aequatio inserviens innotuit.

Cum elementis his emendatis atque iis, quae in limine pro inclinatione et nodo assumsimus, pro epochis geocentricarum observationum latitudines heliocentricae computabantur, observatae geocentricae cum radio elementorum ad heliocentricas reducebantur et ex ambarum differentia aequationes conditionis ad accuratam inclinationis et nodi indagationem exquirebantur. Vana autem fuit spes quam initio conceperam, ex determinatione inclinationis orbitae Mercurii, pro epocha remotiori, quartam assequi aequationem ad stabiliendam Veneris massam idoneam, cum omnino observationes inveniri non possent, huic consilio inserviturae.

Ab initio decreveram, ad determinandas saeculares elementorum Mercurii variationes, illas Mercurii observationes adhibere, quae extant in PTOLEMAEI

Almagesto. Verum enim vero valores inde deductae nimis inter se discrepabant, quam ut iis cum fiducia quadam niti liceret. Cujus discussionis eventum fortasse alio loco exponemus.

Praemissis, quae generaliter de negotio suscepto dicenda erant, restat ut de singulis disquisitionis partibus fusius edisseram. Ac totum quidem quatuor sectionibus absolvitur, quarum unaquaeque partem successivae determinationis verisimillimorum Mercurii elementorum continet.

I. *Determinatio inclinationis, nodi, et hujus annuae variationis ex observatis Mercurii transitibus.*

Quilibet observatus Mercurii transitus heliocentricum praebet Mercurii locum, qui parum distat a sectione orbitae planetae cum ecliptica. Distantia planetae a nodo mutua utriusque orbitae inclinatione et heliocentrica planetae latitudine definitur. Ex qua distantia data statim sequitur nodi longitudo. Sit heliocentrica Mercurii longitudo $= \lambda$, K supposita nodi longitudo, dK hujus correctio, D distantia planetae in ecliptica a nodo: quilibet Mercurii transitus dat aequationem

$$d - D - K - dK = 0;$$

adeoque nunc id modo agendum est, ut definiatur, quatenus incertitudo elementorum, ad computationem ipsius D necessariorum, hujus valorem mutare queat.

Sit, β, b latitudo heliocentrica et geocentrica Mercurii, i inclinatio orbitae, Δ, r distantiae curtatae ☿ a ☉ et ♁, erit

$$\sin D = \frac{\operatorname{tang} \beta}{\operatorname{tang} i};$$

$$dD = d\beta \frac{\operatorname{tang} D}{\sin \beta} - di \operatorname{tang} D \operatorname{cotg} i; \qquad \text{(I.)}$$

$$\operatorname{tang} \beta = \frac{\Delta}{r} \operatorname{tang} b$$

in transitibus adhibere potest aequatio

$$\operatorname{tang} \beta = \frac{1 - r}{r} \operatorname{tang} b$$

inde

$$d\beta = - dr \frac{\operatorname{tang} b \cos^2 \beta}{r^2} + db \frac{(1-r) \cos^2 \beta}{r \cos^2 b}; \qquad \text{(II.)}$$

Planetae ingressibus et egressibus observatis in disco solis, vel mensuratis Mercurii distantiis a Solis marginibus, db seu correctio latitudinis geocentricae ex elementis petitae directe ex ipsis observationibus elicitur, sic ut db tanquam incognita non sit spectanda. Cum vero coefficiens ipsius db in (II) in transitibus

nodi ascendentis > 2, et coefficiens $d\beta$ in (I) > 8, ita ut error unius minutae secundae in geocentrica planetae latitudine distantiam a nodo 16 — 17″ viciosam reddere queat, apparet inde, ad disquisitionem, de qua jam sermo est, tales modo transitus necessario adhibendos esse ex quorum observatione errorem latitudinis tabularis accurate determinare licet. Quatenus autem D mutatur per dr, hac ratione potest intelligi. In transitibus valor maximus ipsius $b = 16'$, pro quo fit $d\beta = 8000'' dr$; dr in partibus radii expresso. Ut vero sit $d\beta = 1''$, esse deberet $dr = 0{,}00012$; jam habebitur, (a = semiaxi majori, M = anom. med.)

$$dr = \left(1 + \frac{e^2}{2}\right) da + (ae + \cos M)\, de$$
$$= 1{,}02\, da + 0{,}405\, de$$

substitutis valoribus numericis ipsorum a et e, et sumto valore $M = 30°$ quemadmodum in transitibus locum habet.

Motum annuum medium, quemadmodum Triesnecker eum determinavit, correctionem duarum minutarum secundarum non admittere, aliunde jam nobis compertum erat, et quum sit

$$da = -\tfrac{2}{3}\frac{a}{nt} \,.\, dnt$$

patet da ad 0,0000001 ascendere non posse; hinc fit

$$dr = 0{,}''405\, de.$$

Jam ut sit $\frac{d\beta}{de}(de) = 1''$, requiritur

$$de = \frac{0{,}00012}{0{,}405} = 0{,}000296 = 61''$$

quam correctionem neutiquam locum habere posse, comparatio elementorum cum observationibus ante instituta mihi jam persuaserat. Restat igitur unica obitae inclinatio, cujus error et calculatam planetae distantiam a nodo erroneam reddere potest quapropter terminus

$$-\, di\ tang\ D\ cotg\ i$$

in aequationes conditionis recipiendus est.

Sit longitudo nodi pro epocha a. 1750 $= K$, illius annua variatio $= nK$ (sec. ill. Laplace) T. Epocha transitus, $d\Omega$ Correctio nodi: habebimus,

$$\lambda - K - (T - 1750)\, nK - d\Omega - arc.\ sin.\left(\frac{tang.\ \beta}{tang.\ i}\right) + di\ tang\ D\ cotg\ i = 0;$$

Correctionis factore pro assumta annua nodi variatione designato per $1 + \mu$, et evolvendo valorem arc. sin. $\left(\frac{tang.\ \beta}{tang.\ i}\right)$. sequitur

$$\lambda - K - (T - 1750)\, nK\,(1 + \mu) - d\Omega + di\ tang.\ D\ cotg.\ i$$
$$- 8{,}''14434\beta - 0{,}''000000002180 06\beta^3 = 0; \qquad (A)$$

β seu latitudo heliocentrica in minutis secundis exprimenda est. Signa expressionis (A) valent pro nodo ascendente et latitudine boreali. In australi mutantur illa trium terminorum posteriorum. Contrarium fit in nodo descendente. Quilibet Mercurii transitus talem parit aequationem, cuius ex complexu μ, $d\Omega$, et di determinanda sunt.

Accurata selectarum observationum, in quolibet transitu factarum, reductio mihi, calculi elementa, qualia hodierna offert astronomia, adhibenti, pro omnibus Mercurii transitibus, inde ab a. 1631 observatis, hos dedit locos Mercurii in conjunctionibus cum sole.

Annus et dies	Tempus med. Seebergense	Longit. hel. ☿ observata *)	Latit. geoc. ☿ vera
1631 6 Novb.	$20^h\ 5'\ 36,''2$	$44^\circ\ 41'\ 27,''7$	. . .
1661 3 Maji	5 15 49, 5	223 33 18, 2	. . .
1677 7 Novb.	0 54 2, 6	45 44 16, 7	$0^\circ\ 4'\ 14,''1$
1690 9 Novb.	18 37 32, 2	48 20 28, 5	. . .
1697 2 Novb.	18 1 24, 0	41 34 37, 3	0 10 52, 9
1723 9 Novb.	5 44 13, 8	46 47 20, 4	0 5 53, 5
1736 10 Novb.	23 27 17, 2	49 23 25, 6	0 14 9, 3
1740 2 Maji	11 2 55, 1	222 43 14, 5	. . .
1743 4 Novb.	22 53 18, 4	42 37 58, 5	. . .
1753 5 Maji	18 56 36, 3	225 47 33, 5	0 2 19, 5
1756 6 Novb.	16 43 38, 4	45 13 45, 2	0 0 59, 1
1769 9 Novb.	22 34 39, 5	47 50 36, 8	0 7 38, 2
1782 12 Novb.	4 14 52, 2	50 26 36, 2	0 15 54, 9
1786 3 Maji	17 45 30, 3	223 49 42, 5	0 11 38, 6
1789 5 Novb.	3 43 54, 2	43 40 43, 6	0 7 25, 9
1799 7 Maji	1 42 14, 4	226 54 21, 8	0 5 45, 7
1802 8 Novb.	21 36 7, 2	46 17 13, 6	0 0 59, 0

Unicum transitum a. 1651, quia dubius erat, omisi.

Quum in duodecim modo transitibus annorum 1677, 1697, 1723, 1736, 1753, 1756, 1769, 1782, 1786, 1789, 1799, 1802 latitudo geocentrica satis accurate posset definiri: etiam hi tantum ad methodum supra explicatam adhiberi queunt. Ubicunque fieri poterat, tabularum solarium error ex observationibus definiebatur, quum longitudo Solis illam planetae per se determinet.

Jam subsitutis pro duodecim transitibus, ante commemoratis, valoribus numericis idoneis, hoc conditionis aequationum systema obtinemus:

$$1677 \quad +32,''0 - d\Omega + 3072{,}1\,\mu + 0,''178\,di = 0;$$
$$1697 \quad +69,2 - d\Omega + 2218{,}8\,\mu - 0,450\,di = 0;$$
$$1723 \quad +90,8 - d\Omega + 1112{,}2\,\mu + 0,248\,di = 0;$$

*) Vera ab aequinoctio medio.

$$
\begin{aligned}
1736 \quad &+ 94,''9 - d\delta\Omega + 559{,}1\,\mu + 0,''595\; di = 0;\\
1753 \quad &+ 68,\ 5 - d\delta\Omega - 142{,}9\,\mu + 0,\ 055\; di = 0;\\
1756 \quad &+ 73,\ 5 - d\delta\Omega - 291{,}1\,\mu - 0,\ 028\; di = 0;\\
1769 \quad &+ 79,\ 4 - d\delta\Omega - 843{,}5\,\mu + 0,\ 339\; di = 0;\\
1782 \quad &+ 58,\ 5 - d\delta\Omega - 1399{,}9\,\mu + 0,\ 668\; di = 0;\\
1786 \quad &+ 47,\ 7 - d\delta\Omega - 1546{,}3\,\mu - 0,\ 280\; di = 0;\\
1789 \quad &+ 81,\ 2 - d\delta\Omega - 1695{,}2\,\mu - 0,\ 310\; di = 0;\\
1799 \quad &+ 42,\ 0 - d\delta\Omega - 2096{,}4\,\mu + 0,\ 139\; di = 0;\\
1802 \quad &+ 51,\ 8 - d\delta\Omega - 2249{,}2\,\mu + 0,\ 042\; di = 0;
\end{aligned}
$$

exhinc per methodum minimorum quadratorum,

$$
\begin{aligned}
&- 779,''5 + 12{,}0\;\delta\Omega + 3306{,}0\;\mu - 1{,}196\; di = 0;\\
&- 184468 + 3306{,}0\;\delta\Omega + 33417740\,\mu - 491{,}72\; di = 0;\\
&+ 91,''29 - 1{,}196\;\delta\Omega - 491{,}72\,\mu + 1{,}410\; di = 0;
\end{aligned}
$$

$$\delta\Omega = + 64,\ 17;\quad \mu = - 0{,}0009851;\quad di = - 10,''32.$$

Substitutis hisce valoribus in aequationibus conditionis sequens sistitur schema:

	Error Aequationis	
	sine Correctio.	cum Correct.
1677	+ 32,″0	− 37,″0
1697	+ 69, 2	+ 7, 4
1723	+ 90, 8	+ 23, 0
1736	+ 94, 9	+ 24, 1
1753	+ 68, 5	+ 3, 8
1756	+ 73, 5	+ 9, 9
1769	+ 79, 4	+ 12, 6
1782	+ 58, 5	− 11, 0
1786	+ 47, 7	− 12, 0
1789	+ 81, 2	+ 21, 9
1799	+ 42, 0	− 21, 6
1802	+ 51, 8	− 10, 7

Cum elementis incorrectis habebitur summa quadratorum errorum $= 55854''$, cum correctis $= 4143''$. Ex valore invento ipsius μ primam nanciscimur aequationem pro massa Veneris. Secundum theoriam ill. Laplace (Méc. cél. Tom. III. p. 88) est

$$\text{annua nodi variatio} = 50,''11 - 7,''566 - 4,''054\;\mu'$$
$$\text{ex mea determinatione} = (50,\ 11 - 7,\ 566)\;(1 + \mu)$$

exhinc

$$\text{I.}\quad + 0,''0419 - 4{,}054\;\mu' = 0.$$

II. *Determinatio motus medii annui Mercurii, et annuae variationis aphelii ex longitudinibus heliocentricis, quas supra commemorati 17 Mercurii transitus praebuerunt.*

Quum, ut jam antea monuimus, omnes Mercurii transitus in uno eodemque nodo, semper proxime in iisdem orbitae punctis, locum habeant, fieri hinc potest, ut observatae longitudines heliocentricae ad medias reducantur, atque ex earum differentiis motus determinetur medius, ita ut nullum aliud elementum, quam annua aphelii variatio, hanc reductionem gravi errore afficere queat. Necesse sane est, ad hoc negotium rite perficiendum, ut jam adsint elementa orbitae satis approximata, ut revera hic evenit. Quaelibet binae longitudines, hoc modo reductae, atque inter se comparatae, dabunt aequationem conditionis, quae tantum correctionem motus medii et annuae aphelii variationis, tamquam quantitates incognitas, continet, quarumque determinationem complexus harum aequationum offert. In quo perquirendo hanc rationem sequutus sum.

Sint duae observatae longitudines heliocentricae, λ, λ' aphelia pro hisce epochis P, $P + T\,dP$, T, annorum series inter λ et λ', dP annua aphelii variatio, nt medius motus annuus Mercurii, γ excentricitas, Ω, Ω', (p) (p') nodi et perturbationes, utrique epochae respondentes. Jam si et observationes et elementa pariter omnis erroris essent expertia: locum haberet haec aequatio:

$$\lambda + F[\gamma(\lambda - P)] + Tnt - f[i(\lambda - \Omega)] - (p) - \lambda' - F'[\gamma'(\lambda' - P)] + f'[i(\lambda' - \Omega')] + (p') = 0; \qquad (B)$$

ubi per F, f . . . functiones excentricitatis, aphelii, inclinationis et nodi, seu ut aliis utar verbis, aequationes centri et reductiones ad orbitam sunt expressae. Quaelibet binarum longitudinum combinatio aequationem hujus formae dabit, cujus aberratio a zero ab erroribus adhibitorum reductionis elementorum pendet. Quodsi primo errorum motus medii atque annuae aphelii variationis nulla habetur ratio, erit, designatis per di, $d\Omega$, $d\gamma$, dP, correctionibus inclinationis, nodi, excentricitatis et aphelii (de correctione epochae nulla habenda est ratio, cum longitudo per observationem data sit) error exinde in reductionem longitudinum heliocentricarum verarum in ecliptica, ad medias in orbita, exsurgens (neglectis quibusdam terminis minoribus, qui hic rite negligendi erant)

$$= 0,''061 \sin\beta \sin(\lambda - \Omega)\, d\Omega + 0,''5 \sin\beta \cos(\lambda - \Omega)\, di + 2\, d\gamma \sin(\lambda - P) - 2\, dP\, \gamma \cos(\lambda - P)$$

Designamus longitudines reductas per (λ), (λ'), errorem differentiae $(\lambda) - (\lambda')$ ob errores in Ω, i, γ et P commissos $= E$, erit

$$E = \begin{cases} 0.''061\, d\Omega\, [\sin\beta \sin(\lambda - \Omega) - \sin\beta' \sin(\lambda' - \Omega')] \\ +0,''5\, di\, [\sin\beta \cos(\lambda - \Omega) - \sin\beta' \cos(\lambda' - \Omega')] \\ +2\, d\gamma\, [\sin(\lambda - P) - \sin(\lambda' - P)] - 2\gamma\, dP\, [\cos(\lambda - P) - \cos(\lambda' - P'] \end{cases} \quad (a)$$

Silentio praeterire nolumus, summae severitatis legem postulasse, ut hic, pariterque in antecedenti nodi determinatione, investigaretur, quatenus perturbationes vel earum differentiae per correctionem massae Veneris errore possent affici. Dum vero ad calculum harum perturbationum periodicarum adhibetur illa Veneris massa, quam ill. Delambre ex Solis observationibus definivit, et quae varias ob causas correctionem 0,1 vix permittit, facili negotio perspicitur, maximum errorem inde metuendum tam parvi momenti esse, ut nulla plane illius ratio habenda sit.

Reliquum est, ut dubitationi occurram, quam fortasse merus mathematicus moverit, hanc rationem, qua pro perturbationibus periodicis Veneris massa, ex annua demum aphelii variatione elicienda, jam pro cognita assumitur, eo laborare vitio, quod circulum in demonstrando logici appellant. Cujus causa hoc addo, istam methodum, determinationibus potiundi successive emendatis, fundamentum esse totius planetarum theoriae, ab hodiernis astronomis elaboratae, atque demonstrari posse, eam recte se habere, quando errores, qui inde nasci queunt, pro minimis superioris ordinis sunt habendi.

In sequenti numerica hujus methodi applicatione ad combinatos Mercurii transitus annorum $\left\{\begin{matrix}1631\\1802\end{matrix}\right\}$, $\left\{\begin{matrix}1677\\1802\end{matrix}\right\}$, $\left\{\begin{matrix}1677\\1789\end{matrix}\right\}$, $\left\{\begin{matrix}1690\\1782\end{matrix}\right\}$, $\left\{\begin{matrix}1697\\1789\end{matrix}\right\}$, $\left\{\begin{matrix}1723\\1802\end{matrix}\right\}$, $\left\{\begin{matrix}1736\\1802\end{matrix}\right\}$, $\left\{\begin{matrix}1736\\1782\end{matrix}\right\}$, $\left\{\begin{matrix}1743\\1789\end{matrix}\right\}$, $\left\{\begin{matrix}1756\\1802\end{matrix}\right\}$, $\left\{\begin{matrix}1661\\1799\end{matrix}\right\}$, $\left\{\begin{matrix}1661\\1786\end{matrix}\right\}$, $\left\{\begin{matrix}1740\\1799\end{matrix}\right\}$, $\left\{\begin{matrix}1753\\1786\end{matrix}\right\}$, $\left\{\begin{matrix}1753\\1799\end{matrix}\right\}$, valores arcuum $\lambda - \Omega$, $\lambda' - \Omega'$ comprehensi sunt, inter $356°$ et $5°$ pro nodo ascendente, atque inter $6^s\ 1°$ et $5^s\ 27°$ pro descendente; differentia inter β, β' non potest excedere $34'$, et anomaliae verae finibus $153 - 156°$ et $330 - 333°$ circumscriptae sunt. Substitutis hisce valoribus extremis in aequatione (a) emergit maximum ipsius E

$$= 0,''0004\, d\Omega + 0,''005\, di + 0,''092\, d\gamma - 0,0099\, dP;$$

Cum jam ex prima hujus disquisitionis sectione valores proxime veritati accedentes pro nodo et inclinatione nobis innotuerint, nullo plane laborat dubio, sine errandi periculo terminos, differentialia $d\Omega$ et di involventes, penitus negligendos esse. Valores autem $d\gamma$, dP limitibus $15''$ et $60''$ includi, est suppositio,

cujus veritatem ultimus disquisitionum mearum exitus plane confirmavit atque stabilivit. Substitutio horum valorum dat maximum erroris

$$= \pm 0,''092.\ 15 \mp 0,0099.\ 60 = \pm 1,''97$$

quod divisum per annorum seriem a λ ad λ' praeterlapsorum, determinationem, de qua hic agitur, haud quaquam revera perturbare potest. Generalis igitur aequationis (B) in limine propositae aberratio a zero, si observationes supponamus omnis vitii expertes, tantum esse potest functio errorum, qui in suppositione annuae variationis aphelii et medii motus Mercurii commissi fuere. In definienda hac functione mihi videbatur utilius, non quaerere correctionem suppositae annuae aphelii variationis, sed aphelium per totum temporis spatium a λ usque ad λ' pro constans habere, atque tum totam variationem, qua per hunc annorum decursum illud afficitur, ex ipsa aequatione (B) determinare.

Jam aphelio pro epocha prioris observationis calculato, et designatis longitudinibus ad medias cum hoc aphelio reductis, per (λ), (λ') habebimus

$$(\lambda') + A.\ T.\ dP - T(nt + dnt) - (\lambda) = 0; \qquad (C)$$

Atqui constat, anomaliae verae reductionem ad mediam, neglectis altioribus excentricitatis dimensionibus, esse

$$= 2\gamma \sin(\lambda - P) + (\tfrac{3}{4}\gamma^2 + \tfrac{1}{8}\gamma^4 + \tfrac{3}{64}\gamma^6) \sin 2(\lambda - P) + (\tfrac{1}{3}\gamma^3 + \tfrac{1}{8}\gamma^5) \sin 3(\lambda - P) + \tfrac{5}{32}\gamma^4 \sin 4(\lambda - P) + \tfrac{3}{40}\gamma^5 \sin 5(\lambda - P) + \ldots.$$

per differentialia trigonometrica finita exhinc habebitur

$$A.\ Tdp = -4\gamma \sin\tfrac{1}{2}\ T.dP \cos(\lambda - P - \tfrac{1}{2}\ Tdp) - 3\gamma^2 \sin\tfrac{1}{2}\ TdP \cos 2(\lambda - P - \tfrac{1}{2}\ Tdp) - 2\gamma^3 \sin\tfrac{1}{2}\ Tdp \cos 3(\lambda - P - \tfrac{1}{2}\ Tdp).$$

Brevitatis causa in membro secundo et tertio *sin n Tdp* mutavimus in *n sin Tdp*. Facile intelligitur, in hac differentiatione terminos neglectos, a quarta et quinta excentricitatis dimensione pendentes,

$$-\tfrac{1}{4}\gamma^4 \cos 2(\lambda - P)\ Tdp; \quad -\tfrac{3}{8}\gamma^5 \cos 3(\lambda - P)\ Tdp;$$
$$-\tfrac{5}{8}\gamma^4 \cos 4(\lambda - P)\ Tdp; \quad -\tfrac{3}{8}\gamma^5 \cos 5(\lambda - P)\ Tdp;$$

negotium nullo modo turbare posse, quum in valoribus, qui hic usu veniunt,

$$\lambda - P = \begin{cases} 152^\circ \\ 330 \end{cases},\ Tdp = 90'$$

hi termini omissi fiant

$$-1,''35; \quad +0,''00; \quad +2,''45; \quad -0,''57;$$

adeoque propemodum se invicem tollant.

Substituto in aequatione (C) valore $A.\ TdP$ haec prodit forma specialis aequationum conditionis, pro praesenti investigatione numerice evolvendarum;

$$\left.\begin{aligned}(\lambda') &- 4\gamma\ cos\ (\lambda'-P-\tfrac{1}{2}\,T\,dp)\\ &- 3\gamma^2\ cos^2(\lambda'-P-\tfrac{1}{2}\,T\,dp)\\ &- 2\gamma^3\ cos^3(\lambda'-P-\tfrac{1}{2}\,T\,dp)\end{aligned}\right\} \circ\ T\ sin\ \tfrac{1}{2}\,dP - T\,(nt + dnt) - (\lambda) = 0; \qquad (D)$$

aequalitatem

$$T\ sin\ \tfrac{1}{2}\,dP = sin\ T\,\tfrac{1}{2}\,dP$$

in aequatione antecedenti a nobis assumtam, et in maximis valoribus ipsius T quam proxime locum habere, et nullum exhinc errandi periculum emergere posse, quilibet in calculo astronomico versatus facile intelliget. Valor dP, qui in aequatione (D) jam pro cognito assumitur, e theoria ill. Laplace sequitur $= 55,''74$; variatio annua excentricitatis $= +\ 0,''0068$; quos valores a veris non nisi paullulum discedere posse, rationes supra allatae ostendunt.

Anomaliarum verarum ad medias reductionem hae dabant expressiones; designata per ε, υ, μ, anomalia excentrica, vera et media, $\gamma = sin\ \varphi$; habebitur (Gauss, Theoria mot. corp. coel. p. 8.)

$$cotg.\ \tfrac{1}{2}\,\varepsilon = cotg.\ \tfrac{1}{2}\,\upsilon\ tang\ (45^\circ - \tfrac{1}{2}\varphi);\ \mu = \varepsilon + \gamma\ sin\ \varepsilon;$$

Qua ratione ad formandas conditionis aequationes his usi sumus quantitatibus auxiliaribus:

Anni	anom. ver. I.	anom. ver. II.	long. med. I.	long. med. II.	motus med.	T.
1631 – 1802	$5^S\ 2^\circ\ 57'\ 35,''4$	$5^S\ 4^\circ\ 33'\ 17,''0$	$54^\circ\ 4'\ 41,''2$	$55^\circ\ 8'\ 34,''0$	$1^\circ\ 57'\ 6,''2$	171.01
1677 – 1802	5 3 18 11, 5	5 3 50 32, 1	55 1 12, 8	55 22 49, 9	1 0 22, 0	125,01
1677 – 1789	5 3 18 11, 5	5 1 12 54, 2	55 1 12, 8	53 37 9, 8	359 10 4, 0	111,99
1690 – 1782	5 5 43 14, 1	5 7 49 36, 1	56 50 0, 0	58 13 41, 9	1 52 50, 5	92,01
1697 – 1789	4 28 47 42, 6	5 0 54 19, 2	52 17 42, 1	53 43 14, 2	1 53 43, 2	92.01
1723 – 1802	5 3 38 39, 8	5 3 7 48, 0	55 57 36, 8	55 36 57, 0	0 3 41, 6	79,00
1736 – 1802	5 6 3 41, 8	5 2 55 44, 2	57 46 18, 7	55 40 58, 9	358 15 6, 6	65,99
1736 – 1782	5 6 3 41, 8	5 7 6 53, 1	57 46 18, 7	58 28 13, 4	0 56 24, 2	46,00
1743 – 1789	4 29 8 23, 5	5 0 11 36, 2	53 14 26, 6	53 57 7, 4	0 56 41, 8	46,01
1756 – 1802	5 1 33 19, 2	5 2 37 9, 0	55 4 18, 4	55 47 7, 2	0 57 5, 4	46.01
1661 – 1799	11 1 21 35, 9	11 4 43 12, 3	210 31 55, 3	215 15 12, 0	3 50 46, 6	138.01
1661 – 1786	11 1 21 35, 9	11 1 37 30, 6	210 31 55, 3	210 54 8, 4	359 36 28, 7	124,99
1740 – 1799	10 29 17 21, 6	11 3 29 49, 3	208 52 41, 7	214 45 2, 1	5 30 3, 4	59.02
1753 – 1786	11 2 10 54, 6	12 0 12 2, 6	213 6 18, 6	210 20 33, 9	357 2 6, 2	32,99
1753 – 1799	11 2 10 54, 6	11 3 17 44, 3	213 6 18, 6	214 40 6, 0	1 16 24, 0	46,01

His valoribus in aequatione (D) rite substitutis, hae prodeunt aequationes conditionis;

1. 1631 – 1802; $-\ 3193,''2 + 113,''1950\ sin\ \tfrac{1}{2}\,dP - 171,''01\ dnt = 0;$
2. 1677 – 1802; $-\ 2328,8 + 82,6041\ sin\ \tfrac{1}{2}\,dP - 125,01\ dnt = 0;$
3. 1677 – 1789; $-\ 2050,0 + 72,8495\ sin\ \tfrac{1}{2}\,dP - 111,99\ dnt = 0;$
4. 1690 – 1782; $-\ 1750,0 + 62,1693\ sin\ \tfrac{1}{2}\,dP - 92,01\ dnt = 0;$
5. 1697 – 1789; $-\ 1961,1 + 59,7823\ sin\ \tfrac{1}{2}\,dP - 92,01\ dnt = 0;$
6. 1723 – 1802; $-\ 1463,3 + 52,0784\ sin\ \tfrac{1}{2}\,dP - 79,00\ dnt = 0;$

7. 1736 – 1802 — 1223,″4 + 43,″4815 $sin \frac{1}{2} dP$ — 65,″99 $dnt = 0$;
8. 1736 – 1782 — 869, 4 + 31, 0265 $sin \frac{1}{2} dP$ — 46, 00 $dnt = 0$;
9. 1743 – 1789 — 840, 0 + 29, 8260 $sin \frac{1}{2} dP$ — 46, 01 $dnt = 0$;
10. 1756 – 1802 — 856. 2 + 30, 1986 $sin \frac{1}{2} dP$ — 46, 01 $dnt = 0$;
11. 1661 – 1799 + 3152, 7 —112, 8246 $sin \frac{1}{2} dP$ — 138, 01 $dnt = 0$;
12. 1661 – 1786 + 2744, 4 — 97, 9322 $sin \frac{1}{2} dP$ — 124, 99 $dnt = 0$;
13. 1740 – 1799 + 1337, 4 — 47, 8422 $sin \frac{1}{2} dP$ — 59, 02 $dnt = 0$;
14. 1753 – 1786 + 739, 3 — 25, 5775 $sin \frac{1}{2} dP$ — 32, 99 $dnt = 0$;
15. 1753 – 1799 + 1046, 0 — 37, 2548 $sin \frac{1}{2} dP$ — 46, 01 $dnt = 0$;

Manifesto vero absolutus harum aequationum valor non plane idem, sed in ratione composita bonitatis observationum et temporis T est. Consilii hinc erit, illarum coefficientes ad modum aliquem restringere, priusquam incognitarum valores inde evolvi queant. Quodsi observationibus ex saec. XVII dimidius conceditur valor, et intervallum 46 annorum pro unitate sumitur: hoc prodit systema aequationum conditionis:

1. — 34,″708 + 1,″2303 $sin \frac{1}{2} dP$ — 1,″8588 $dnt = 0$;
2. — 25, 313 + 0, 8979 – – — 1, 3588 – $= 0$;
3. — 22, 283 + 0, 7919 – – — 1, 2173 – $= 0$;
4. — 18, 980 + 0, 6757 – – — 1, 0000 – $= 0$;
5. — 18, 380 + 0, 6497 – – — 1, 0000 – $= 0$;
6. — 31, 804 + 1, 1321 – – — 1, 7174 – $= 0$;
7. — 26, 587 + 0, 9454 – – — 1, 4346 – $= 0$;
8. — 18, 470 + 0, 6745 – – — 1, 0000 – $= 0$;
9. — 18, 260 + 0, 6483 – – — 1, 0000 – $= 0$;
10. — 18, 610 + 0, 6564 – – — 1, 0000 – $= 0$;
11. + 34, 268 — 1, 2263 – – — 1, 5000 – $= 0$;
12. + 29, 831 — 1, 0646 – – — 1, 3586 – $= 0$;
13. + 29, 074 — 1, 0397 – – — 1, 2831 – $= 0$;
14. + 16, 072 — 0, 5562 – – — 0, 7172 – $= 0$;
15. + 22, 750 — 0, 8097 – – — 1, 0000 – $= 0$;

inde per methodum minimorum quadratorum,

— 337,″673 + 11,″991 $sin \frac{1}{2} dP$ — 5,″247 $dnt = 0$;
+ 146, 942 — 5, 247 $sin \frac{1}{2} dP$ + 24, 046 $dnt = 0$;
$\frac{1}{2} dP = +$ 28, 177; $dnt = +$0, 0369;

Quorum quidem valorum substitutione in ultima aequationum serie facta, hunc obtinemus praeclarum sane consensum

Nro. Aequ.	Error	Nro. Aequ.	Error	Nro. Aequ.	Error
1	— 0,″09	6	+ 0,″04	11	— 0,″34
2	— 0, 06	7	+ 0, 01	12	— 0, 21
3	+ 0, 00	8	+ 0, 40	13	— 0, 27
4	+ 0, 02	9	— 0, 03	14	+ 0, 38
5	— 0, 11	10	— 0, 15	15	— 0, 11

Neutiquam tamen omittenda est animadversio, errorem hic notatum esse quadraginta-sextuplicem partem veri observationum erroris.

Ex theoria ill. LAPLACE habebitur

annua variatio aphelii $= 50,''11 + 5,''626 + 3,''023\ \mu'$

ex mea determinatione $= 50,\ 11 + 6,\ 244$

unde secunda emergit aequatio, ad determinandam Veneris massam

II. $\qquad + 0,''618 - 3,''023\ \mu' = 0;$

III. *Determinatio dimensionum ellipseos a Mercurio circa solem descriptae. Epocha, aphelium, excentricitas, motus medius.*

Cum ex superioribus disquisitionibus valores nodi, illius annuae variationis, motus medii Mercurii, et variationis aphelii, partim veritati appropinquantes, partim prorsus jam cogniti sint, transeundum erat ad investiganda reliqua elementa elliptica. Cui negotio adhibebantur partim septendecim longitudines heliocentricae, supra ex transitibus derivatae, partim centum observationes geocentricae ab cl. observatoribus MASKELYNE et PIAZZI institutae. Aequationes conditionis inde evolutae tamquam quantitates incognitas continebant correctionem epochae, aphelii, motus medii, excentricitatis, et factorem pro corrigenda Veneris massa. Perturbationes periodicae supputabantur cum illa Veneris massa, qualis supponitur ab ill. LAPLACE in Méc. cél. T. III. p. 61. Cum ex sectione prima hujus disquisitionis valores proxime appropinquati pro nodo et inclinatione jam adsint, haud necesse erat, ut illorum correctiones etiam in aequationes e longitudinibus derivatas admitterentur, cum error paucarum minutarum secundarum in nodo et inclinatione reductionem longitudinis ad eclipticam haudquaquam turbare queat. Expressio, qua differentia longitudinis heliocentricae et observatae et ex elementis calculatae datur per functionem correctionum elementorum ellipticorum, satis simplex est. Sint λ, λ' longitudines calculatae et observatae, dN, dnt, $d\gamma$, dP, μ' correctiones epochae, motus medii, excentricitatis, aphelii, et factor pro massa Veneris, habebitur

$$\begin{aligned}
(\lambda-\lambda') &+ dN\,[1-(2\gamma-\tfrac{1}{4}\gamma^3)\cos M+(\tfrac{5}{2}\gamma^2-\tfrac{11}{12}\gamma^4)\cos 2M-\tfrac{13}{4}\gamma^3\cos 3M+\tfrac{103}{24}\gamma^4\cos 4M]\\
&+ T dnt\,[1-(2\gamma-\tfrac{1}{4}\gamma^3)\cos M+(\tfrac{5}{2}\gamma^2-\tfrac{11}{12}\gamma^4)\cos 2M-\tfrac{13}{4}\gamma^3\cos 3M+\tfrac{103}{24}\gamma^4\cos 4M]\\
&- d\gamma\,[(2-\tfrac{3}{4}\gamma^2)\sin M-(\tfrac{5}{2}\gamma-\tfrac{11}{6}\gamma^3)\sin 2M+\tfrac{13}{4}\gamma^2\sin 3M-\tfrac{103}{24}\gamma^3\sin 4M]\\
&+ dP\,[2\gamma-\tfrac{1}{4}\gamma^3)\cos M-(\tfrac{5}{2}\gamma^2-\tfrac{11}{12}\gamma^4)\cos 2M+\tfrac{13}{4}\gamma^3\cos 5M-\tfrac{103}{24}\gamma^4\cos 4M]\\
&+ (p)\mu' = 0; \qquad \text{(E)}
\end{aligned}$$

Sed paulo magis composita est functio, quando quaeritur relatio inter locum geocentricum et correctiones elementorum ellipticorum. Jam extant disquisitiones huc pertinentes, a cl. viris EULER et ORIANI (Comment. Petrop. T. XVII Theor. Merc. p. 93) in publicum prolatae. Nuperrime etiam cl. GAUSS de hac re disseruit (Theor. mot. corp. coel. p. 75) et pro more elegantissimas evolvit formulas, omnia omnino elementa orbitae planetariae complectentes. Quum hae expressiones sint et commodae et omnibus numeris absolutae, nullo modo eis uti dubitassem, dummodo minus magnus fuisset geocentricarum aequationum conditionis numerus. Quum vero orbitae Mercurii indoles concedat, excentricitatem per totum temporis spatium, quod observationes geocentricae, hic adhibendae amplectuntur, pro constante sumere: mihi videbatur calculi centies repetiti molestia levari posse formulis, quae, etsi per se multo longiores sint, quam illae evolutae a cl. GAUSS, tabularum tamen auxiliarium usum permittant. Qua ratione hanc methodum sequutus sum. Sint, longitudo planetae geocentrica l, r, Δ curtatae distantiae a sole ac terra, L, R longitudo terrae heliocentrica et distantia a Sole: habebitur

$$r \sin (l-\lambda) = R \sin (l-L)$$

$$\operatorname{tang} l = \frac{r \sin \lambda - R \sin L}{r \cos \lambda - R \cos L};$$

exhinc differentiando efficitur

$$dl = d\lambda \frac{r}{\Delta} \cos (\lambda - l) + dr \frac{\sin (\lambda - l)}{\Delta}; \qquad (F)$$

Ut igitur dl fiat functio elementorum ellipticorum, in hac aequatione exprimendi sunt valores $d\lambda$, dr, per dN, dnt, $d\gamma$, dP et μ'; $d\lambda = (\lambda' - \lambda)$ jam notum est ex aequatione conditionis, quam supra pro locis heliocentricis obtinuimus; pro dr habebitur

$$\begin{aligned} dr = &- dN\,a\,[(\gamma - \tfrac{3}{8}\gamma^3) \sin M - (\gamma^2 - \tfrac{2}{3}\gamma^4) \sin 2M + \tfrac{9}{8}\gamma^3 \sin 3M - \tfrac{4}{3}\gamma^4 \sin 4M] \\ &- T dnt\,a\,[(\gamma - \tfrac{3}{8}\gamma^3) \sin M - (\gamma^2 - \tfrac{2}{3}\gamma^4) \sin 2M + \tfrac{9}{8}\gamma^3 \sin 3M - \tfrac{4}{3}\gamma^4 \sin 4M] \\ &+ d\gamma\,a\,[\gamma + (1 - \tfrac{9}{8}\gamma^2) \cos M - (\gamma - \tfrac{4}{3}\gamma^3) \cos 2M + \tfrac{9}{8}\gamma^2 \cos 3M - \tfrac{4}{3}\gamma^3 \cos 4M] \\ &+ dP\,a\,[(\gamma - \tfrac{3}{8}\gamma^3) \sin M - (\gamma^2 - \tfrac{2}{3}\gamma^4) \sin 2M + \tfrac{9}{8}\gamma^3 \sin 3M - \tfrac{4}{3}\gamma^4 \sin 4M] \end{aligned}$$

Terminum ipsius dr a differentiali semi-axeos pendentem omittendum esse putavimus, cum hic nunquam valorem 0,0000001 assequi queat; habebitur

$$\frac{dr}{da} = 1 + \frac{\gamma^2}{2} + (\gamma - \tfrac{3}{8}\gamma^3) \cos M - (\tfrac{1}{2}\gamma^2 - \tfrac{1}{3}\gamma^4) \cos 2M + \tfrac{3}{8}\gamma^3 \cos 3M - \ldots$$

$$da = -\tfrac{2}{3} \frac{a}{nt} . dnt$$

in orbita Mercurii est

$$\tfrac{2}{3} \cdot \frac{a}{nt} = 0,00000004796$$

Jam ex disquisitionibus superioribus satis constat, correctionem motus medii annui minorem una minuta secunda esse, unde patet, semper fore $da < 0{,}0000001$ et perinde plane negligendum esse.

Denominamus

$$\frac{r}{\Delta} \cdot \cos(\lambda + l) = \alpha; \quad \frac{\sin(\lambda - l)}{\Delta} = \beta$$

Facta substitutione valorum $d\lambda$ et dr ex aequationibus (E) (G) in aequatione (F) hanc nanciscimur expressionem, qua dl datur per functionem elementorum ellipticorum;

$$\begin{aligned}
&-dl + dN \begin{cases} +\alpha\,[1 - (2\gamma - \tfrac{1}{4}\gamma^3)\cos M + (\tfrac{5}{2}\gamma^2 - \tfrac{11}{12}\gamma^4)\cos 2M - \tfrac{13}{4}\gamma^3 \cos 3M + \tfrac{103}{24}\gamma^4 \cos 4M] \\ -a\beta\,[(\gamma - \tfrac{3}{8}\gamma^3)\sin M - (\gamma^2 - \tfrac{2}{3}\gamma^4).\sin 2M + \tfrac{9}{8}.\gamma^3 \sin 3M - \tfrac{4}{3}.\gamma^4 \sin 4M] \end{cases} \\
&+T.dnt \begin{cases} +\alpha\,[1 - (2\gamma - \tfrac{1}{4}\gamma^3)\cos M + (\tfrac{5}{2}\gamma^2 - \tfrac{11}{12}\gamma^4)\cos 2M - \tfrac{13}{4}\gamma^3 \cos 3M + \tfrac{103}{24}\gamma^4 \cos 4M] \\ -a\beta\,[(\gamma - \tfrac{3}{8}\gamma^3)\sin M - (\gamma^2 - \tfrac{2}{3}\gamma^4)\sin 2M + \tfrac{9}{8}\gamma^3 \sin 3M - \tfrac{4}{3}\gamma^4 \sin 4M] \end{cases} \\
&-de \begin{cases} +\alpha\,[(2 - \tfrac{3}{4}\gamma^2)\sin M - (\tfrac{5}{2}\gamma - \tfrac{11}{6}\gamma^3)\sin 2M + \tfrac{13}{4}\gamma^2 \sin 3M - \tfrac{103}{24}\gamma^3 \sin 4M] \\ -a\beta\,[\gamma + (1 - \tfrac{9}{8}\gamma^2)\cos M - (\gamma - \tfrac{4}{3}\gamma^3)\cos 2M + \tfrac{9}{8}\gamma^2 \cos 3M - \tfrac{4}{3}\gamma^3 \cos 4M] \end{cases} \\
&+dP \begin{cases} +\alpha\,[(2\gamma - \tfrac{1}{4}\gamma^3)\cos M - (\tfrac{5}{2}\gamma^2 - \tfrac{11}{12}\gamma^4)\cos 2M + \tfrac{13}{4}\gamma^3 \cos 3M - \tfrac{103}{24}\gamma^4 \cos 4M] \\ +a\beta\,[(\gamma - \tfrac{3}{8}\gamma^3 \sin M - (\gamma^2 - \tfrac{2}{3}\gamma^4)\sin 2M + \tfrac{9}{8}\gamma^3 \sin 3M - \tfrac{4}{3}\gamma^4 \sin 4M] \end{cases} \\
&\quad + \alpha(p)\,\mu' = 0; \qquad \text{(H)}
\end{aligned}$$

Quae aequationum conditionis forma etsi prolixitatis speciem praebeat: tamen ejus calculus numericus, ut centies usu edoctus asseverare possum, si tabulae auxiliares, ob id ipsum constructae, adhibeantur, perfacilis est ac tutus. Sit

$$\begin{aligned}
A &= (2\gamma - \tfrac{1}{4}\gamma^3)\cos M - (\tfrac{5}{2}\gamma^2 - \tfrac{11}{12}\gamma^4)\cos 2M + \tfrac{13}{4}\gamma^3 \cos 3M - \tfrac{103}{24}\gamma^4 \cos 4M \\
B &= a[(\gamma - \tfrac{3}{8}\gamma^3)\sin M - (\gamma^2 - \tfrac{2}{3}\gamma^4)\sin 2M + \tfrac{9}{8}\gamma^3 \sin 3M - \tfrac{4}{3}\gamma^4 \sin 4M] \\
C &= (2 - \tfrac{3}{4}\gamma^2)\sin M - (\tfrac{5}{2}\gamma - \tfrac{11}{6}\gamma^3)\sin 2M + \tfrac{13}{4}\gamma^2 \sin 3M - \tfrac{103}{24}\gamma^3 \sin 4M \\
D &= \alpha[\gamma + (1 - \tfrac{9}{8}\gamma^2)\cos M - (\gamma - \tfrac{4}{3}\gamma^3)\cos 2M + \tfrac{9}{8}\gamma^2 \cos 3M - \tfrac{4}{3}\gamma^3 \cos 4M].
\end{aligned}$$

Substitutis hisce valoribus in aequatione (H), habebitur

$$\begin{aligned}
&-dl + dN[\alpha - (\alpha A + \beta C)] + T.dnt\,[\alpha - (\alpha A + \beta C)] - d\gamma[\alpha B - \beta D] \\
&\quad + dP\,[\alpha A + \beta C] + \alpha(p)\,\mu' = 0; \qquad \text{(J)}
\end{aligned}$$

Quantitates α et β in reductione longitudinis heliocentricae ad geocentricam facillime obtinentur; tabulae auxiliares modo dictae, cum argumento *anomaliae mediae*, sine ullo calculo dant valores A, B, C, D; inventis autem quantitatibus α, β, A, B, C, D, calculus totius aequationis conditionis tantummodo nititur formatione duorum membrorum $\alpha A + \beta C$, $\alpha B - \beta D$, ita ut horum evolutio numerica facillime ac brevissimo tempore absolvatur. Quas commemoravi tabulas auxiliares pro valoribus A, B, C, D, eas in hujus in-

troductionis fine typis exprimi curavi, quum futuris elementorum orbitae Mercurii disquisitionibus prodesse queant.

Quum per reductionem longitudinis heliocentricae ad geocentricam ope factoris $\alpha = \frac{r}{\Delta} \cos(\lambda - l)$ error heliocentricus saepissime valde imminuatur, atque eo ipso coefficientes dN, dnt, $d\gamma$, dP exigui fiant, adeoque cura nimis parva in differentia observatae atque calculatae longitudinis geocentricae ($= dl$) evolvenda quaesitas elementorum ellipticorum correctiones maximopere mutare queat: summa debebat in determinandis valoribus ipsius dl adhiberi diligentia. Quae ex observationum erroribus vitia emergi possunt in elementis ellipticis inde deducendis, per magnum earum ad calculum revocatarum numerum eliminata esse spero. Locorum vero heliocentricorum ex elementis petitorum ad geocentricos reductionem, omnis ut credo erroris expertem ut obtinerem contigit, cum de tabularum Solis ex observationibus correctione magnopere sollicitus fuerim.

Observationes Mercurii, quas ad scopum propositum ex diariis astronomicis virorum cl. Maskelyne et Piazzi collegi et reduxi, hae sunt:

Nr.	Annus et dies	Temp. med. Seeberg.	AR appar. ☿ observ.	Decl. appar. ☿ observ.	Nomen observ.
1	1775 Febr. 27	$1^h\ 51'\ 43,''1$	$354^\circ\ 22'\ 14,''2$	$-\ 2^\circ\ 17'\ 12,''0$	Maskelyne
2	– Decb. 11	23 12 40, 9	238 22 4, 8	− 18 29 27, 6	–
3	1776 Aug. 1	23 28 26, 1	112 57 28, 1	+ 20 30 19, 6	–
4	– Aug. 6	23 37 20, 4	120 7 6, 0	+ 20 31 39, 2	–
5	1777 Maj. 25	2 18 25, 4	87 19 19, 9	+ 25 26 24, 3	–
6	1777 Nov. 5	23 19 29, 6	205 5 56, 4	− 8 4 34, 9	–
7	1778 Aug. 18	2 6 58, 1	167 59 30, 3	+ 5 21 12, 7	–
8	– Aug. 20	2 9 41, 5	170 38 43, 9	+ 3 56 1, 2	–
9	– Aug. 24	2 13 54, 3	175 38 40, 2	+ 1 9 53, 1	–
10	1779 Febr. 5	23 10 43, 9	293 20 45, 2	− 20 49 20, 9	–
11	1779 Decb. 3	1 49 51, 3	268 55 40, 1	− 25 49 29, 5	–
12	1780 Maj. 28	23 9 18, 6	44 7 38, 1	+ 13 54 49, 4	–
13	– Jul. 11	2 10 42, 7	131 59 5, 1	+ 19 27 24, 9	–
14	– Jul. 25	2 33 41, 6	151 32 41, 2	+ 11 20 35, 4	–
15	– Jul. 29	2 34 8, 0	155 35 52, 3	+ 9 3 44, 0	–
16	1782 Jun. 14	2 21 13, 0	107 31 49, 8	+ 24 19 35, 8	–
17	– Jun. 22	2 34 6, 2	118 38 46, 1	+ 21 44 36, 0	–
18	– Jun. 23	2 34 39, 4	119 46 14, 7	+ 21 22 5, 8	–
19	– Jun. 24	2 34 57, 4	120 49 53, 7	+ 20 59 42, 2	–
20	– Oct. 24	1 58 40, 0	231 59 1, 1	− 21 56 42, 2	–
21	1783 Jul. 26	23 26 7, 7	105 47 4, 2	+ 21 10 1, 1	–
22	1784 Maj. 18	2 13 38, 9	79 31 54, 9	+ 25 18 57, 3	–
23	– Maj. 19	2 14 0, 1	80 36 21, 1	+ 25 17 34, 6	–
24	– Sept. 19	2 7 36, 0	200 14 10, 5	− 11 53 52, 2	–
25	1785 Jan. 10	2 9 45, 2	312 9 15, 6	− 18 6 50, 1	–

Nr.	Annus et Dies	Temp. med. Seeberg.	AR. appar. ☿ observ.	Decl. appar. ☿ observ.	Nomen observ.
26	1785 Jun. 21	23^h 11′ 12,″1	68° 3′ 5,″7	+ 19° 6′ 13,″4	MASKELYNE
27	– Aug. 28	2 20 25, 8	181 31 50, 7	— 3 5 52, 8	–
28	– Dec. 29	2 0 18, 4	297 43 15, 7	— 21 0 18, 0	–
29	1786 Apr. 12	1 55 35, 1	39 2 41, 5	+ 18 7 13, 0	–
30	– Sept. 20	23 31 58, 4	162 43 7, 2	+ 7 55 39, 7	–
31	1786 Sept. 26	23 33 35, 8	169 2 22, 6	+ 6 26 42, 4	–
32	1787 Mart. 21	1 51 26, 1	16 4 54, 7	+ 8 27 1, 4	–
33	– Maj. 18	23 4 57, 4	32 30 5, 2	+ 9 48 59, 4	–
34	– Aug. 1	2 24 26, 0	155 26 43, 5	+ 7 21 25, 4	–
35	1788 Mart. 11	1 54 59, 3	7 51 46, 5	+ 6 4 53, 4	–
36	1788 Jul. 4	2 37 14, 3	131 47 55, 5	+ 17 56 15, 2	–
37	1789 Febr. 20	2 2 24, 4	350 45 25, 8	— 2 35 39, 5	–
38	– Aug. 5	23 30 30, 7	117 16 53, 1	+ 20 13 46, 3	–
39	1791 Jun. 26	22 21 19, 7	73 23 39, 9	+ 19 2 28, 7	PIAZZI
40	– Jun. 27	22 20 40, 3	74 12 58, 8	+ 19 17 42, 7	–
41	1791 Jun. 28	22 20 20, 2	75 6 58, 3	+ 19 33 31, 7	–
42	– Jun. 28	23 13 48, 1	75 9 28, 2	+ 19 34 0, 7	MASKELYNE
43	– Jun. 29	22 20 21, 0	76 6 19, 3	+ 19 49 49, 0	PIAZZI
44	– Jun. 30	22 20 41, 8	77 10 24, 8	+ 20 6 56, 0	–
45	– Sept. 4	1 22 23, 3	186 47 33, 2	— 5 1 41, 1	–
46	1791 Sept. 5	1 22 20, 0	187 45 54, 2	— 5 36 8, 7	–
47	1792 Aug. 13	1 31 20, 0	168 6 15, 0	+ 4 12 23, 7	–
48	– Aug. 14	1 31 44, 3	169 11 3, 4	+ 3 34 25, 3	–
49	– Aug. 16	1 32 5, 5	171 14 17, 8	+ 2 20 33, 0	–
50	– Aug. 17	1 32 4, 1	172 13 17, 9	+ 1 44 34, 0	–
51	1792 Aug. 18	1 31 53, 0	173 9 48, 5	+ 1 9 31, 4	–
52	– Aug. 20	1 31 5, 7	174 56 10, 6	+ 0 1 55, 0	–
53	– Aug. 21	1 30 27, 5	175 45 54, 6	— 0 31 17, 0	–
54	– Aug. 23	1 29 1, 0	177 17 22, 0	— 1 31 22, 3	–
55	– Aug. 24	1 27 31, 0	177 57 58, 4	— 1 59 56, 0	–
56	1792 Aug. 25	1 26 9, 9	178 37 34, 8	— 2 27 12, 6	–
57	– Aug. 26	1 24 35, 7	179 13 17, 9	— 2 52 43, 3	–
58	– Decb. 11	1 9 38, 1	280 55 45, 6	— 25 12 20, 0	–
59	– Decb. 15	1 14 1, 9	285 59 1, 0	— 24 22 12, 5	–
60	1793 Apr. 7	1 53 19, 3	33 50 36, 6	+ 16 38 2, 0	MASKELYNE
61	1793 Jul. 19	1 28 2, 0	142 38 23, 8	+ 15 43 22, 0	PIAZZI
62	– Jul. 23	1 35 15, 9	148 8 44, 2	+ 13 17 48, 1	–
63	– Jul. 28	1 39 32, 9	154 6 19, 6	+ 10 16 51, 0	–
64	– Aug. 2	2 32 49, 3	159 3 58, 5	+ 7 23 12, 9	MASKELYNE
65	– Aug. 2	1 39 22, 3	159 2 17, 4	+ 7 24 56, 1	PIAZZI
66	1793 Aug. 3	1 39 50, 4	159 53 18, 3	+ 6 52 39, 0	–
67	– Aug. 4	1 38 8, 0	160 41 33, 0	+ 6 21 0, 0	–
68	– Aug. 5	1 37 13, 0	161 27 1, 3	+ 5 50 35, 0	–
69	– Aug. 6	1 36 7, 0	162 9 30, 0	+ 5 20 58, 0	–
70	1794 Maj. 19	1 55 23, 5	15 23 42, 0	+ 9 4 3, 8	MASKELYNE
71	1794 Jul. 22	2 30 26, 8	147 23 19, 6	+ 11 6 41, 8	–
72	– Aug. 27	23 34 35, 2	139 46 19, 5	+ 14 50 8, 9	–
73	– Novb. 9	1 58 26, 2	247 47 3, 5	— 24 36 37, 1	–
74	1795 Aug. 12	23 31 23, 2	123 56 42, 6	+ 18 33 37, 0	–
75	– Oct. 22	1 58 8, 1	229 43 40, 6	— 21 11 42, 7	–

Nr.	Annus et dies			Temp. med. Seeberg.			AR. appar. ☿ observ.			Decl. appar. ☿ observ.			Nomen observ.
76	1795	Oct.	23	1h	58′	34,″0	230°	49′	18,″7	— 21°	30′	55,″5	MASKELYNE
77	1796	Jul.	29	23	28	32, 4	110	10	45, 3	+ 21	3	28, 3	–
78	–	Oct.	10	1	59	55, 8	219	5	48, 9	— 18	37	34, 0	–
79	1797	Maj.	23	2	16	3, 8	84	54	41, 6	+ 25	16	4, 8	–
80		Jul.	13	23	22	25, 0	92	38	5, 4	— 21	45	43, 0	–
81	1797	Sept.	21	2	7	27, 8	202	1	9, 0	— 12	30	22, 6	–
82	1798	Febr.	19	23	11	14, 5	307	39	42, 0	— 18	48	12, 2	–
83	–	Febr.	24	23	14	3, 6	313	17	47, 2	— 18	12	3, 8	–
84	–	Aug.	30	2	19	26, 5	183	5	58, 2	— 3	41	6, 7	–
85	–	Aug.	31	1	18	57, 2	183	57	45, 5	— 4	13	24, 9	–
86	1801	Apr.	27	23	3	27, 6	11	2	12, 7	+ 1	39	50, 7	–
87	–	Aug.	22	23	33	7, 6	133	47	52, 6	+ 16	34	52, 7	–
88	–	Aug.	24	23	33	22, 3	135	49	39, 0	+ 16	33	54, 6	–
89	1802	Apr.	12	23	6	42, 5	356	49	45, 0	— 4	0	23, 9	–
90	–	Jun.	21	2	33	16, 8	116	37	24, 0	+ 21	50	52, 5	–
91	1802	Aug.	7	23	29	40, 6	117	54	29, 4	+ 19	45	19, 0	–
92	–	Oct.	15	1	59	23, 9	222	27	51, 6	— 19	12	9, 0	–
93	–	Oct.	16	1	59	42, 5	223	31	37, 6	— 19	34	49, 0	–
94	1803	Febr.	7	1	6	33, 8	337	36	40, 6	— 8	48	44, 7	–
95	–	Jun.	4	1	23	25, 4	97	9	31, 9	+ 24	41	50, 0	–
96	1804	Sept.	12	2	12	48, 4	193	48	37, 6	— 8	49	13, 3	–
97	1805	Oct.	3	23	28	39, 3	174	6	22, 5	+ 3	46	14, 2	–
98	–	Oct,	4	23	27	52, 4	174	53	45, 7	+ 3	37	54, 1	–
99	–	Oct.	5	23	27	32, 8	175	47	58, 2	+ 3	25	4, 1	–
100	1806	Maj.	27	23	3	39, 3	40	27	7, 2	+ 12	5	47, 9	–

Ut pro his temporibus loca Solis sine ullo errore obtinerem, hanc observationum seriem cum tabulis comparavi:

Observationes Grenovicenses.

Annus et dies			AR ☉ observ.			Long. ☉ observ.			Long. ☉ tab.			Corr. tab.
1753	Apr.	20	28°	23′	15,″7	30°	30′	18,″4	30°	30′	20,″6	— 2,″2
–	Apr.	22	30	15	9, 6	32	27	1, 2	32	27	4, 7	— 3, 5
–	Apr.	23	31	11	18, 0	33	25	21, 3	33	25	25, 2	— 3, 9
–	Apr.	26	34	0	30, 0	36	20	14, 6	36	20	15, 6	— 1, 0
1775	Febr.	26	339	27	28, 8	337	46	43, 6	337	46	45, 5	— 1, 9
1775	Febr.	27	340	23	55, 5	338	46	55, 4	338	46	56, 5	— 1, 1
–	Dec.	11	258	25	27, 6	259	21	32, 0	259	21	31, 6	+ 0, 4
–	Dec.	12	259	31	39, 7	260	22	37, 2	260	22	38, 1	— 0, 9
1776	Aug.	1	132	6	27, 7	129	39	38, 0	129	39	43, 0	— 5, 0
–	Aug.	2	133	4	30, 0	130	37	2, 6	130	37	8, 2	— 5, 6
1776	Aug.	6	136	55	22, 0	134	27	3, 2	134	27	8, 3	— 5, 1
–	Aug.	7	137	52	45, 9	135	24	39, 3	135	24	42, 1	— 2, 8
1777	Maj.	25	62	30	22, 8	64	28	52, 4	64	28	53, 9	— 1, 5
–	Maj.	26	63	31	6, 3	65	26	27, 4	65	26	26, 0	+ 1, 4
1777	Nov.	5	220	58	58, 2	223	26	38, 0	223	26	37, 1	+ 0, 9

Annus et dies			AR ☉ observ.			Long. ☉ observ.			Long. ☉ tab.			Corr. tab.
1777	Nov.	6	211°	58′	49,″5	224°	26′	54,″4	224°	26′	55,″6	— 1,″2
1778	Aug.	20	149	38	39, 0	147	26	33, 5	147	26	36, 0	— 2, 5
–	Aug.	23	152	25	2, 7	150	20	16, 5	150	20	18, 6	— 2, 1
–	Aug.	24	153	20	20, 0	151	18	16, 7	151	18	17, 4	— 0, 7
1779	Febr.	4	318	5	37, 8	315	37	33, 9	315	37	36, 0	— 2, 1
1779	Febr.	6	320	6	4, 5	317	39	4, 2	317	39	4, 8	— 0, 6
–	Dec.	3	249	41	45, 1	251	15	13, 1	251	15	5, 3	+ 7, 8
–	Dec.	4	250	47	0, 3	252	16	10, 7	252	16	3, 9	+ 6, 8
1780	Maj.	28	65	49	48, 0	67	37	30, 0	67	37	29, 2	+ 0, 8
–	Maj.	29	66	50	53, 2	68	35	0, 0	68	34	59, 9	+ 0, 1
1780	Jul.	10	110	13	45, 9	108	40	35, 2	108	40	34, 9	+ 0, 3
–	Jul.	11	111	14	49, 8	109	37	44, 2	109	37	47, 8	— 3, 6
–	Jul.	25	125	17	23, 9	122	59	32, 8	122	59	31, 9	+ 0, 9
–	Jul.	29	129	13	8, 9	126	49	8, 7	126	49	8, 6	+ 0, 1
1782	Jun.	14	82	50	4, 8	83	25	23, 6	83	25	24, 4	— 0, 8
1782	Jun.	15	83	52	24, 2	84	22	40, 9	84	22	41, 4	— 0, 5
–	Jun.	22	91	9	1, 8	91	3	24, 4	91	3	22, 7	+ 1, 7
–	Jun.	23	92	11	27, 0	92	0	35, 0	92	0	33, 4	+ 1, 6
–	Oct.	23	208	6	29, 7	210	12	46, 1	210	12	43, 9	+ 2, 2
–	Oct.	24	209	3	48, 5	211	12	40, 0	211	12	35, 5	+ 4, 5
1782	Nov.	13	228	51	6, 7	231	17	11, 5	231	17	9, 6	+ 1, 9
–	Nov.	14	229	52	41, 7	232	17	45, 2	232	17	41, 7	+ 3, 5
1783	Jul.	27	126	33	25, 8	124	13	18, 6	124	13	17, 3	+ 1, 3
–	Jul.	28	127	32	27, 6	125	10	46, 0	125	10	41, 9	+ 4, 1
1784	Maj.	18	55	48	44, 7	58	4	25, 2	58	4	27, 2	— 2, 0
1784	Maj.	19	59	48	38, 1	59	2	8, 5	59	2	9, 0	— 0, 5
–	Sept.	18	176	27	39, 6	176	8	33, 8	176	8	34, 9	— 1, 1
–	Sept.	19	177	21	34, 6	177	7	18, 7	177	7	18, 9	— 0, 2
1785	Jan.	7	289	11	54, 5	287	42	48, 4	287	42	48, 8	— 0, 4
–	Jan.	10	292	27	56, 7	290	46	18, 8	290	46	21, 0	— 2, 2
1785	Jun.	20	89	21	52, 2	89	25	1, 4	89	25	0, 3	+ 1, 1
–	Jun.	22	91	26	31, 5	91	19	22, 2	91	19	23, 6	— 1, 4
–	Aug.	30	159	6	54, 2	157	24	50, 0	157	24	52, 6	— 2, 6
–	Aug.	31	160	1	26, 8	158	22	57, 8	158	8	59, 8	— 2, 0
–	Dec.	29	279	1	46, 5	278	17	36, 4	278	17	42, 1	— 5, 7
1785	Dec.	30	280	8	10, 2	279	18	46, 7	279	18	53, 3	— 6, 6
1786	Apr.	12	20	59	59, 3	22	42	30, 0	22	42	31, 2	— 1, 2
–	Apr.	13	21	55	12, 3	23	41	8, 1	23	41	10, 4	— 2, 3
–	Apr.	29	36	51	37, 8	39	15	42, 2	39	15	47, 0	— 4, 8
–	Maj.	1	38	45	54, 7	41	12	1, 0	41	12	4, 3	— 3, 3
1786	Sept.	19	176	55	23, 2	176	38	46, 4	176	38	49, 2	— 2, 8
–	Sept.	21	178	43	17, 0	178	36	22, 0	178	36	22, 0	— 0, 0
–	Sept.	25	182	19	15, 2	182	31	48, 1	182	31	52, 7	— 4, 6
–	Sept.	26	183	13	19, 8	183	30	46, 6	183	30	50, 0	— 3, 4
1787	Mart.	21	0	44	48, 6	0	48	41, 7	0	48	42, 5	— 0, 8
1787	Mart.	22	1	39	15, 6	1	48	12, 8	1	48	10, 5	+ 2, 3
–	Maj.	17	54	5	46, 7	56	24	44, 0	56	24	39, 4	+ 4, 6
–	Maj.	18	55	5	20, 4	57	22	26, 4	57	22	24, 5	+ 1, 9
–	Aug.	1	131	28	54, 0	129	2	34, 0	129	2	37, 1	— 3, 1
–	Aug.	2	132	27	8, 7	130	0	4, 2	130	0	4, 8	— 0, 6

Annus et dies			AR. ⊙ observ.			Long. ⊙ observ.			Long. ⊙ tab.			Corr. tab.
1788	Mart.	10	351°	23′	50,″4	350°	38′	6,″3	350°	38′	7,″9	— 1,″6
–	Mart.	11	352	18	55, 2	351	37	54, 6	351	37	55, 3	— 0, 7
–	Jul.	4	104	9	14, 2	103	1	39, 0	103	1	39, 1	— 0, 1
–	Jul.	5	105	11	13, 5	103	58	51, 4	103	58	52, 1	— 0, 7
–	Novb.	1	217	21	37, 2	219	46	13, 0	219	46	8, 3	+ 4, 7
1788	Nov.	2	218	20	41, 1	220	46	21, 3	220	46	20, 9	+ 0, 4
1789	Febr.	20	334	21	0, 5	332	22	11, 2	332	22	13, 3	— 2, 1
–	Febr.	21	335	18	24, 9	333	22	36, 3	333	22	35, 1	+ 1, 2
–	Aug.	5	135	50	9, 9	133	21	50, 9	133	21	46, 1	+ 4, 8
–	Aug.	6	136	47	37, 5	134	19	19, 3	134	19	16, 1	+ 3, 2
1789	Nov.	5	221	4	34, 5	223	32	14, 9	223	32	14, 4	+ 0, 5
–	Nov.	8	224	4	59, 1	226	33	18, 2	226	33	14, 7	+ 3, 5
1791	Jun.	25	94	5	0, 9	93	44	48, 8	93	44	44, 8	+ 4, 0
–	Jun.	26	95	7	20, 5	94	42	2, 7	94	41	58, 3	+ 4, 4
–	Jun.	27	96	9	32, 1	95	39	11, 0	95	39	12, 2	— 1, 2
1791	Jun.	28	97	11	51, 6	96	36	28, 7	96	36	26, 2	+ 2, 5
–	Jun.	29	98	14	2, 5	97	33	40, 9	97	33	39, 8	+ 1, 1
–	Sept.	9	167	45	0, 6	166	41	1, 2	166	41	1, 6	— 0, 4
–	Sept.	10	168	38	58, 8	167	39	23, 7	167	39	24, 3	— 0, 6
1792	Aug.	12	142	44	52, 8	140	20	25, 4	140	20	21, 4	+ 4, 0
1792	Aug.	13	143	41	21, 7	141	18	6, 0	141	18	5, 9	+ 0, 1
–	Aug.	14	144	37	45, 5	142	15	51, 0	142	15	49, 2	+ 1, 8
–	Aug.	15	145	34	0, 6	143	13	36, 6	143	13	33, 2	+ 3, 4
–	Aug.	24	153	54	34, 8	151	54	19, 5	151	54	15, 5	+ 4, 0
–	Aug.	25	154	49	30, 3	152	52	15, 7	152	52	13, 6	+ 2, 1
–	Aug.	27	156	39	24, 1	154	48	16, 3	154	48	12, 7	+ 3, 6
–	Aug.	28	157	34	6, 7	155	46	15, 2	155	46	11, 5	+ 3, 7
–	Decb.	7	254	59	17, 5	256	10	47, 7	256	10	47, 5	+ 0, 2
–	Decb.	8	256	5	12. 1	257	11	51, 7	257	11	49, 3	+ 2, 4
1793	Apr.	7	16	41	46, 8	18	6	24, 7	18	6	22, 1	+ 2, 6
–	Apr.	8	17	36	37, 5	19	5	14, 2	19	5	12, 9	+ 1, 3
–	Jul.	15	115	9	40, 5	113	18	39, 6	113	18	37, 7	+ 1, 9
–	Jul.	16	116	10	14, 0	114	15	54, 8	114	15	53, 4	+ 1, 4
–	Aug.	1	131	59	45, 3	129	33	15, 3	129	33	16, 0	— 0, 7
–	Aug.	2	132	58	4, 5	130	30	43, 4	130	30	41, 1	+ 2, 3
–	Aug.	3	133	56	0, 2	131	28	10, 0	131	28	11, 0	— 1, 0
–	Aug.	5	135	51	36, 0	133	23	18, 1	133	23	14, 7	+ 3, 4
–	Aug.	6	136	49	6, 3	134	20	49, 5	134	20	47, 7	+ 1, 8
1794	Mart.	19	359	12	0, 0	359	7	40, 4	359	7	36, 4	+ 4, 0
–	Mart.	20	0	6	32, 0	0	7	7, 3	0	7	4, 7	+ 2, 6
1794	Jul.	22	121	55	56, 7	119	45	22, 7	119	45	22, 9	— 0, 2
–	Jul.	23	122	55	38, 7	120	42	45, 5	120	42	43, 6	+ 1, 9
–	Aug.	28	157	7	27, 6	155	17	58, 6	155	17	52, 7	+ 5, 9
–	Aug.	29	158	2	9, 5	156	16	0, 9	156	15	57, 7	+ 3, 2
–	Nov.	9	224	52	5, 1	227	20	13, 6	227	20	9, 7	+ 3, 9
–	Nov.	10	225	52	45, 7	228	20	36, 6	228	20	33, 0	+ 3, 6
1795	Aug.	11	141	7	10, 6	138	41	1, 1	138	41	1, 1	+ 0, 0
–	Aug.	13	143	0	30, 7	140	36	20, 0	140	36	21, 8	— 1, 8
–	Oct.	22	207	0	38, 4	209	3	38, 5	209	3	33, 5	+ 5, 0
–	Oct.	23	207	57	37, 5	210	3	25, 5	210	3	23, 7	+ 1, 8

Annus et dies			AR. ☉ observ.			Long. ☉ observ.			Longit. ☉ tabul.			Corr. tab.
1796	Jul.	30	130°	19′	24,″6	127°	54′	12,″0	127°	54′	13,″5	— 1,″5
	Jul.	31	131	17	49, 2	128	51	40, 3	128	51	41, 0	— 0, 7
–	Oct,	10	196	29	22, 6	197	53	6, 5	197	53	5, 6	+ 0, 9
–	Oct.	12	198	20	20, 6	199	52	4, 2	199	52	1, 8	+ 2, 4
1797	Maj.	24	61	40	7, 8	63	41	6, 1	63	41	9, 5	— 3, 4
–	Maj.	25	62	40	46, 6	64	38	43, 4	64	38	44, 3	— 0, 9
–	Jul.	13	113	9	56, 2	111	25	48, 2	111	25	47, 3	+ 0, 9
–	Jul.	14	114	10	43, 8	112	23	1, 9	112	23	1, 6	+ 0, 3
–	Sept.	21	179	0	53, 5	178	55	33, 9	178	55	28, 8	+ 5, 1
–	Sept.	22	179	54	51, 5	179	54	23, 7	179	54	18, 4	+ 5, 3
1798	Febr.	18	332	14	53, 4	330	9	39, 6	330	9	41, 2	— 1, 6
–	Febr.	19	333	12	32, 2	331	10	6, 8	331	10	6, 8	— 0, 0
–	Febr.	25	338	54	48, 6	337	11	59, 1	337	12	0, 7	— 1, 6
–	Febr.	27	340	47	41, 4	339	12	21, 2	339	12	22, 9	— 1, 7
–	Aug.	30	158	58	45, 1	157	16	10, 8	157	16	8, 0	+ 2, 8
1798	Aug.	31	159	53	12, 5	158	14	11, 8	158	14	13, 7	— 1, 9
1799	Maj.	6	43	24	56, 1	45	53	16, 8	45	53	13, 6	+ 3, 2
–	Maj.	7	44	22	57, 6	46	51	16, 9	46	51	13, 8	+ 3, 1
1801	Apr.	23	34	22	3, 5	36	42	24, 1	36	42	22, 9	+ 1, 2
–	Apr.	28	35	18	45, 6	37	40	37, 7	37	40	35, 7	+ 2, 0
1801	Aug.	20	149	8	14, 0	146	54	57, 3	146	54	59, 8	— 2, 5
–	Aug.	22	150	59	9, 3	148	50	27, 2	148	50	28, 3	— 1, 1
1802	Apr.	10	18	21	36, 0	19	53	26, 8	19	53	30, 0	— 3, 2
–	Apr.	12	20	11	41, 0	21	51	1, 5	21	51	1, 3	+ 0, 2
–	Jun.	20	88	11	55, 6	88	20	51, 5	88	20	48, 9	+ 2, 6
1802	Jun.	21	89	14	17, 1	89	18	4, 0	89	18	3, 1	+ 0, 9
–	Aug.	7	136	39	18, 0	134	10	57, 2	134	11	3, 1	— 5, 9
–	Aug.	8	137	36	46, 2	135	8	34, 8	135	8	35, 5	— 0, 7
–	Oct.	15	199	46	54, 2	201	24	35, 7	201	24	32, 6	+ 3, 1
–	Oct.	16	200	42	45, 5	202	24	8, 6	202	24	6, 8	+ 1, 8
1802	Nov.	7	221	55	29, 1	224	23	32, 2	224	23	28, 0	+ 4, 2
–	Nov.	8	222	55	31, 0	225	23	48, 6	225	23	45, 9	+ 2, 7
1803	Febr.	7	320	17	1, 2	317	50	9, 1	317	50	9, 8	— 0, 7
–	Febr.	9	322	16	33, 5	319	51	31, 0	319	51	34, 7	— 3, 7
–	Jun.	1	68	19	37, 1	69	58	17, 6	69	58	18, 0	— 0, 4
1803	Jun.	4	71	23	53, 5	72	50	34, 0	72	50	32, 3	+ 1, 7
1804	Sept.	11	169	25	22, 5	168	29	26, 0	168	29	24, 3	+ 1, 7
–	Sept.	12	170	19	17, 2	169	27	52, 1	169	27	50, 5	+ 1, 6
1805	Oct.	3	189	0	42, 3	189	48	30, 4	189	48	25, 4	+ 5, 0
–	Oct.	4	189	55	14, 1	190	47	41, 1	190	47	36, 3	+ 4, 8
1805	Oct.	5	190	49	50, 4	191	46	51, 1	191	46	46, 9	+ 4, 2
–	Oct.	6	191	44	33, 2	192	46	4, 3	192	46	0, 0	+ 4, 3
1806	Maj.	26	62	30	39, 5	64	29	7, 1	64	29	6, 5	+ 0, 6
–	Maj.	27	63	31	22, 2	65	26	40, 6	65	26	39, 2	+ 1, 4

Ad has autem AR. et declinationes Mercurii ad eclipticam reducendas ila adhibita eſt eclipticae obliquitas, qualem ill. DE ZACH in novissimis tabulis Solaribus (*Tables abrégées et portatives du Soleil. Florence 1809*) determinavit; dein rite adjecta aberratione et nutatione, loca apparentia in vera, ab aequi-

noctio medio computata, transmutavi; loca heliocentrica vero, quae ex elementis deduxeram, cum correctis Solis locis ad geocentrica reducta sunt, et ex differentia loci observati et calculati et ex evolutione numerica aequationis (H) sequens aequationum conditionis systema elicitum et constitutum est:

$$-5,''7 + 0,''207\,dN + 5,''195\,dnt - 0,''388\,de - 0,''052\,dP - 0,''247\,\mu' = 0;$$

$$\begin{array}{rrrrrrr}
-0,4 & +0,103 & +2,673 & +0,356 & +0,072 & -0,209 & =0;\\
-2,2 & +0,024 & +0,638 & -0,186 & -0,060 & -0,117 & =0;\\
+1,2 & +0,157 & +4,176 & +0,231 & -0,073 & +0,134 & =0;\\
-2,2 & -0,173 & -4,740 & +0,016 & +0,080 & -1,175 & =0;\\
+8,8 & +0,108 & +3,008 & +0,412 & +0,024 & +0,290 & =0;\\
+6,3 & +0,180 & +5,155 & +0,440 & +0,034 & +2,190 & =0;\\
+4,7 & +0,167 & +4,783 & +0,416 & +0,038 & +2,097 & =0;\\
+6,0 & +0,142 & +4,069 & +0,375 & +0,041 & +1,703 & =0;\\
+3,1 & -0,016 & -0,466 & -0,230 & +0,078 & +0,062 & =0;\\
-2,4 & +0,147 & +4,400 & -0,313 & +0,079 & -2,420 & =0;\\
+0,1 & +0,133 & +4,043 & +0,253 & -0,077 & -0,471 & =0;\\
+6,8 & +0,221 & +6,745 & +0,481 & -0,038 & -0,679 & =0;\\
+9,3 & +0,075 & +2,293 & +0,420 & -0,008 & -0,362 & =0;\\
+10,6 & +0,026 & +0,795 & +0,425 & -0,012 & -0,076 & =0;\\
+7,5 & +0,153 & +4,966 & +0,295 & -0,072 & +0,267 & =0;\\
+5,3 & +0,033 & +1,072 & +0,295 & -0,075 & -0,185 & =0;\\
+1,1 & +0,014 & +0,455 & +0,269 & -0,075 & -0,267 & =0;\\
+6,8 & -0,003 & -0,097 & +0,301 & -0,078 & -0,354 & =0;\\
+6,8 & -0,036 & -1,181 & +0,089 & +0,088 & +0,569 & =0;\\
+4,4 & +0,045 & +1,511 & +0,261 & -0,070 & -0,156 & =0;\\
+4,2 & -0,013 & -0,447 & -0,078 & -0,104 & -0,387 & =0;\\
+5,7 & -0,035 & -1,203 & -0,089 & -0,110 & -0,477 & =0;\\
+5,8 & -0,047 & -1,632 & +0,360 & +0,055 & -0,002 & =0;\\
-5,0 & -0,045 & -1,567 & -0,357 & +0,045 & +0,003 & =0;\\
+0,0 & +0,056 & +1,986 & +0,015 & -0,093 & +0,353 & =0;\\
+4,7 & +0,021 & +0,749 & +0,385 & +0,032 & -0,503 & =0;\\
-5,6 & -0,237 & -8,532 & -0,268 & +0,104 & +0,703 & =0;\\
-2,8 & +0,000 & +0,000 & -0,322 & -0,065 & +0,259 & =0;\\
-1,6 & -0,092 & -3,378 & +0,453 & +0,016 & +0,787 & =0;\\
-4,4 & +0,116 & +4,262 & +0,397 & -0,022 & -1,002 & =0;\\
+0,3 & +0,150 & +5,584 & -0,293 & -0,063 & +0,004 & =0;\\
-1,1 & +0,082 & +3,065 & -0,307 & -0,066 & +0,062 & =0;\\
+6,2 & -0,292 & -10,973 & +0,533 & +0,085 & -0,103 & =0;\\
-7,2 & -0,009 & -0,462 & -0,012 & -0,048 & -0,270 & =0;\\
-3,4 & -0,057 & -2,944 & +0,443 & -0,027 & -0,599 & =0;\\
+2,2 & +0,015 & +0,775 & +0,367 & -0,036 & -0,150 & =0;\\
-6,9 & +0,044 & +2,300 & -0,427 & -0,010 & -0,238 & =0;\\
+5,5 & -0,020 & -1,049 & +0,266 & -0,089 & +0,665 & =0;
\end{array}$$

+ 1,"5	— 0,"006 dN	— 0,"316 dnt	+ 0,"352 de	+ 0,"047 dP	+ 0,"346 μ' = 0;
— 0, 9	+ 0, 052	+ 2, 745	+ 0, 106	+ 0, 084	— 0, 572 = 0;
— 1, 0	+ 0, 039	+ 2, 059	+ 0, 103	+ 0, 084	— 0, 516 = 0;
— 8, 4	+ 0, 030	+ 1, 593	— 0, 405	+ 0, 004	— 0, 135 = 0;
+ 3, 0	— 0, 046	— 2, 458	+ 0, 076	— 0, 112	— 1, 820 = 0;
+ 0, 8	+ 0, 007	+ 0, 383	+ 0, 343	+ 0, 050	— 0, 138 = 0;
+ 3, 1	— 0, 081	— 4, 517	+ 0, 423	+ 0, 027	— 0, 253 = 0;
+ 1, 7	— 0, 040	— 2, 231	+ 0, 409	+ 0, 019	— 0, 098 = 0;
+ 0, 6	+ 0, 002	+ 0, 111	+ 0, 399	+ 0, 010	+ 0, 049 = 0;
— 1, 9	— c, 004	— 0, 226	— 0, 203	— 0, 093	— 0, 930 = 0;
— 5, 1	— 0, 096	— 3, 668	— 0, 487	— 0, 010	— 0, 727 = 0;
+ 1, 9	+ 0, 008	+ 0, 308	+ 0, 377	— 0, 057	— 0, 534 = 0;
— 3, 7	+ 0, 004	+ 0, 155	— 0, 409	— 0, 007	— 0, 018 = 0;
— 4, 0	+ 0, 070	+ 2. 771	+ 0, 221	— 0, 072	— 0, 028 = 0;
— 3, 0	— 0, 032	— 1, 328	+ 0, 170	— 0, 101	+ 1, 218 = 0;
— 2, 8	— 0, 084	+ 3, 635	— 0, 452	— 0, 055	+ 0, 916 = 0;
— 7, 3	+ 0, 014	+ 0, 567	+ 0, 427	— 0, 008	+ 0, 004 = 0;
— 4, 3	— 0, 020	— 0, 884	— 0, 418	— 0, 024	— 0, 087 = 0;
+ 1, 3	— 0, 122	— 5, 436	+ 0, 479	— 0, 057	— 1, 203 = 0;
— 1, 3	— 0, 110	— 4, 912	+ 0, 500	— 0, 012	— 0, 585 = 0;
+ 5, 0	+ 0, 043	+ 1, 929	— 0, 102	+ 0, 086	+ 1, 304 = 0;
— 1, 4	— 0, 048	— 2, 190	+ 0, 422	— 0, 041	+ 0, 159 = 0;
+ 1, 7	+ 0, 049	+ 2, 245	+ 0, 042	+ 0, 087	+ 0, 160 = 0;
+ 5, 2	+ 0, 035	+ 1, 603	+ 0, 042	+ 0, 087	+ 0, 146 = 0;
+ 4, 3	+ 0, 070	+ 3, 260	+ 0, 253	— 0, 068	— 0, 014 = 0;
+ 2, 0	— 0, 062	— 2, 901	+ 0, 227	+ 0, 079	— 0, 204 = 0;
+ 5, 1	— 0, 056	— 2, 654	— 0, 065	— 0, 115	+ 1, 345 = 0;
+ 3, 3	+ 0, 087	+ 4, 136	+ 0, 134	— 0, 077	— 0, 038 = 0;
+ 2, 5	— 0, 031	— 1, 480	+ 0, 328	+ 0, 061	+ 0, 421 = 0;
— 9, 0	+ 0, 004	+ 0, 192	— 0, 311	+ 0, 061	— 0, 502 = 0;
— 6, 6	+ 0, 071	+ 3, 419	— 0, 298	+ 0, 060	— 1, 010 = 0;
+ 5, 4	+ 0, 036	+ 1, 752	+ 0, 368	+ 0, 036	— 0, 245 = 0;
+10, 5	+ 0, 021	+ 1, 022	+ 0, 375	+ 0, 037	— 0, 197 = 0;
— 8, 0	— 0, 081	— 3, 361	+ 0, 206	— 0, 113	+ 1, 317 = 0;
+ 5, 2	— 0. 056	— 2, 324	+ 0, 189	— 0, 107	+ 0, 937 = 0;
— 3, 2	— 0, 032	— 1, 328	+ 0, 170	— 0, 102	+ 1, 218 = 0;
+ 8, 8	— 0, 007	— 0, 208	+ 0, 151	— 0, 098	+ 0, 623 = 0;
— 3, 7	+ 0, 015	+ 0, 623	+ 0, 132	— 0, 093	+ 0, 470 = 0;
+ 5, 9	+ 0, 073	+ 3, 043	+ 0, 337	+ 0, 046	— 1, 013 = 0;
+ 5. 3	+ 0, 060	+ 2, 501	+ 0, 338	+ 0, 046	— 0, 863 = 0;
+ 3, 8	+ 0, 099	+ 4, 220	+ 0, 396	+ 0, 025	— 1, 240 = 0;
+ 5, 0	+ 0, 091	+ 3, 879	+ 0, 395	+ 0, 023	— 1, 142 = 0;
+ 2, 1	+ 0, 070	+ 2, 984	+ 0, 392	+ 0, 023	— 0, 929 = 0;
+ 5, 8	+ 0, 060	+ 2, 558	+ 0, 393	+ 0, 021	— 0, 812 = 0;

+ 9,"8	+ 0,"046 dN	+ 1,"961 dnt	+ 0,"396 de	+ 0,"023 dP	— 0,"688 μ'	= 0;
+ 6, 2	+ 0, 022	+ 0, 938	+ 0, 406	+ 0, 019	— 0, 414	= 0;
— 4, 2	+ 0, 009	+ 0, 384	+ 0, 410	+ 0, 017	— 0, 262	= 0;
+ 3, 9	— 0, 022	— 0, 938	+ 0, 430	+ 0, 017	+ 0, 055	= 0;
+ 6, 2	— 0, 042	— 1, 791	+ 0, 443	+ 0, 017	+ 0, 251	= 0;
+ 6, 5	— 0, 061	— 2, 602	+ 0, 458	+ 0, 016	+ 0, 445	= 0;
+ 6, 0	— 0, 079	— 3, 370	+ 0, 476	+ 0, 014	+ 0, 651	= 0;
— 2, 8	+ 0, 095	+ 4, 080	— 0. 346	+ 0, 058	+ 0, 138	= 0;
+ 6, 3	+ 0, 021	+ 0, 902	— 0, 301	+ 0, 058	+ 0, 118	= 0;
+ 9, 1	+ 0, 171	+ 7, 449	+ 0, 465	— 0, 016	+ 0, 451	= 0;
— 1, 2	+ 0, 166	+ 7, 233	+ 0, 438	— 0, 007	+ 0, 421	= 0;
+ 3, 0	+ 0, 077	+ 3, 355	+ 0, 419	— 0, 004	+ 0, 117	= 0;
— 6, 2	+ 0, 013	+ 0, 567	+ 0, 427	— 0, 007	+ 0, 003	= 0;
— 0, 9	+ 0, 000	+ 0, 000	+ 0, 433	— 0, 010	+ 0, 003	= 0;
+ 1, 7	— 0, 015	— 0, 654	+ 0, 439	— 0, 012	— 0, 003	= 0;
— 5, 0	— 0, 033	— 1, 440	+ 0, 450	— 0, 012	+ 0, 010	= 0;
+ 2, 3	— 0, 041	— 1, 788	+ 0, 460	— 0, 023	+ 0, 026	= 0;

Ut calculi fieret compendium, hae centum aequationes, pentade pentadi addenda, in viginti contrahebantur. Ex quibus, conjunctim cum iis, quas dederant ſeptemdecim longitudines heliocentricae, ex transitibus derivatae, ad determinationem incognitarum dN, dnt, de, dP, μ' hoc finale aequationum systema prodibat

1	trans.	1631	+ 12,"8	+ 1,"4935 dN	— 176,461 dnt	— 1,"0248 de	— 0,"4935 dP	+ 7,"6 μ' = 0;
2	—	1661	+ 33, 7	+ 0, 7228	— 64,082	+ 0, 9170	+ 0, 2772	— 14, 1 = 0;
3	—	1677	+ 10, 0	+ 1, 4947	— 107,835	— 1, 0231	— 0, 4947	— 13, 3 = 0;
4	—	1690	+ 16, 5	+ 1, 5028	— 88,864	— 0, 9309	— 0, 5028	— 4, 1 = 0;
5	—	1697	+ 3, 0	+ 1, 4768	— 77,015	— 1, 1714	— 0, 4768	+ 6, 7 = 0;
6	—	1723	+ 14, 2	+ 1, 4958	— 39,115	— 1, 0051	— 0, 4958	— 10, 5 = 0;
7	—	1736	+ 13, 0	+ 1, 5054	— 19,776	— 0, 9257	— 0, 5054	— 5, 1 = 0;
8	—	1740	+ 5, 6	+ 0, 7295	— 7,047	+ 0, 9803	+ 0, 2705	— 9, 7 = 0;
9	—	1743	— 9, 5	+ 1, 4783	— 9,076	— 1, 1609	— 0, 4783	+ 14, 6 = 0;
10	—	1753	+ 13, 3	+ 0, 7143	+ 2,389	+ 0, 8854	+ 0, 2857	— 5, 5 = 0;
11	—	1756	— 10, 8	+ 1, 4879	+ 10,192	— 1, 0791	— 0, 4879	+ 7, 8 = 0;
12	—	1769	— 5, 5	+ 1, 4969	+ 29,728	— 0, 9939	— 0, 4969	— 12, 1 = 0;
13	—	1782	— 10, 8	+ 1, 5066	+ 49,515	— 0, 9137	— 0, 5060	+ 13, 0 = 0;
14	—	1786	+ 7, 0	+ 0, 7219	+ 26,234	+ 0, 9608	+ 0, 2781	— 7, 7 = 0;
15	—	1789	— 4, 5	+ 1, 4781	+ 58,898	— 1, 1545	— 0, 4781	+ 6, 7 = 0;
16	—	1799	+ 10, 6	+ 0, 7185	+ 35,458	+ 0, 8809	+ 0, 2815	+ 5, 6 = 0;
17	—	1802	— 4, 6	+ 1, 4834	+ 78,398	— 1, 1175	— 0, 4834	— 0, 4 = 0;
18	long. geoc.		+ 13, 4	+ 0, 5720	+ 15,650	+ 1, 2530	— 0, 0030	+ 2, 3 = 0;
19	—	—	+ 7, 5	— 0, 2730	— 8,070	— 0, 1810	+ 0, 2110	— 1, 1 = 0;
20	—	—	+ 8, 5	— 0, 4240	— 15,112	+ 0, 3780	— 0, 0390	+ 0, 6 = 0;

21	long. geoc.	+ 3,"6	— 0,"3840 dN	— 15,774 dnt	+ 1,"5820 de	— 0,"1260 dP	+ 0,"1 μ'	=	0;
22	- -	+ 1, 9	+ 0, 0360	— 4,237	+ 0, 3170	— 0, 2110	+ 0, 3	=	0;
23	- -	— 13, 9	— 0, 3540	— 14,951	— 0, 7080	— 0, 2470	+ 0, 2	=	0;
24	- -	+ 7, 8	— 0, 3070	— 14,137	+ 1, 4120	— 0, 0280	+ 0, 3	=	0;
25	- -	+ 13, 2	+ 0, 8100	+ 24,040	+ 0, 7090	+ 0, 0470	+ 0, 3	=	0;
26	- -	+ 23, 3	+ 0, 3010	+ 9,581	+ 1, 7040	— 0, 1920	— 0, 6	=	0;
27	- -	+ 1, 9	+ 0, 2380	+ 8,508	+ 0, 7360	— 0, 2180	— 1, 1	=	0;
28	- -	— 6, 4	+ 0, 3430	+ 14,469	— 0, 5520	— 0, 0910	— 0, 9	=	0;
29	- -	— 6, 1	+ 0, 0860	+ 4,454	+ 0, 5170	+ 0, 0910	— 1, 3	=	0;
30	- -	— 8, 3	+ 0, 1800	+ 7,711	— 0, 1790	+ 0, 0850	+ 1, 4	=	0;
31	- -	— 2, 8	+ 0, 2670	+ 12,610	— 0, 0800	+ 0, 0630	— 1, 4	=	0;
32	- -	+ 23, 4	+ 0, 2050	+ 8,941	+ 2, 1500	+ 0, 0720	— 1, 9	=	0;
33	- -	+ 16, 5	+ 0, 3660	+ 15,602	+ 1, 9720	+ 0, 1150	— 4, 8	=	0;
34	- -	+ 2, 0	+ 0, 3180	+ 13,753	+ 0, 6340	+ 0, 1360	+ 0, 3	=	0;
35	- -	+ 10, 1	+ 0, 2000	+ 8,831	+ 1, 9060	— 0, 1350	+ 1, 5	=	0;
36	- -	+ 7, 7	— 0, 1840	— 7,716	+ 1, 4010	— 0, 2790	+ 3, 1	=	0;
37	- -	+ 11, 5	— 0, 2290	— 9,854	+ 2, 2830	— 0, 0170	+ 1, 1	=	0;

Unde per methodum minimorum quadratorum,

$$
\begin{aligned}
&- 144,"86 + 1280,"19\ \mu' = 0;\\
&+ 10,"20 + 1,"550\ dP - 14,"743\ \mu' = 0;\\
&+ 315,"97 + 40,"548\ de + 3,"241\ dP - 53,"840\ \mu' = 0;\\
&- 6697,"16 + 76915,"65\ dnt + 184,"340\ de + 66,"240\ dP + 1783,"30\ \mu' = 0;\\
&+ 143, 56 + 31,"689\ dN - 356,"48\ dnt - 13,"48\ de - 7,"64\ dP - 9,"08\ \mu' = 0;
\end{aligned}
$$

exhinc;

$$
\begin{aligned}
\mu' &= + 0,"11315\\
dP &= - 5, 5\\
de &= - 7, 2\\
dnt &= + 0, 106403\\
dN &= - 7, 7
\end{aligned}
$$

Substitutis hisce valoribus in aequationibus antecedentibus, harum errores sunt, qui sequuntur:

Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error
1	— 4,"04	8	+ 12,"50	14	— 5,"85	20	+ 7,"69	26	+ 10,"50	32	+ 10,"93
2	+ 10, 70	9	— 6, 37	15	+ 2, 78	21	— 5, 95	27	— 3, 78	33	— 0, 50
3	— 6, 78	10	— 0, 62	16	+ 3, 57	22	— 0, 19	28	— 3, 48	34	— 3, 77
4	+ 3, 89	11	+ 12, 14	17	— 2, 07	23	— 6, 32	29	— 12, 81	35	— 3, 10
5	— 3, 15	12	— 4, 95	18	+ 3, 03	24	— 1, 21	30	— 9, 94	36	+ 0, 29
6	+ 5, 16	13	+ 4, 22	19	+ 8, 84	25	+ 4, 69	31	— 3, 57	37	— 3, 42
7	+ 6, 90										

Sine correctione summa errorum quadratorum = 6135"

cum correctione . . . . . = 2238

Ex valore ipsius μ' habebitur tertia aequatio, ad determinandam Veneris massam,

III. $0{,}11315 - \mu' = 0$;

IV. *Determinatio nodi et inclinationis ex observatis latitudinibus geocentricis.*

Elementorum ope ellipticorum emendatorum per valores dN, dnt, de, dP supra inventos, eorumque in limine negotii pro nodo et inclinatione suppositorum, calculavimus latitudines heliocentricas, observationum geocentricarum temporibus respondentes; observatas autem latitudines geocentricas distantiarum ope Mercurii a sole et terra, ex elementis ellipticis correctis definitarum, ad heliocentricas reduximus. Quo facto ex comparatione locorum, per observationem et calculum datorum, sequens aequationum conditionis systema consequuti sumus:

1	$+ 8,''1$	$+ 0,''073\, di$	$- 0,''121\, d\Omega = 0$;	26	$+ 8,''4$	$- 0,''948\, di$	$- 0,''039\, d\Omega = 0$;
2	$-16,0$	$+ 0,714$	$+ 0,086 = 0$;	27	$- 9,7$	$- 0,651$	$+ 0,092 = 0$;
3	$+ 8,9$	$- 0,498$	$- 0,106 = 0$;	28	$+ 3,5$	$+ 0,009$	$- 0,122 = 0$;
4	$+12,2$	$- 0,023$	$- 0,122 = 0$;	29	$- 3,7$	$+ 0,994$	$+ 0,013 = 0$;
5	$- 2,2$	$+ 0,599$	$+ 0,098 = 0$;	30	$+ 7,1$	$+ 0,220$	$- 0,119 = 0$;
6	$- 2,6$	$+ 0,996$	$+ 0,011 = 0$;	31	$- 1,4$	$+ 0,771$	$- 0,078 = 0$;
7	$-12,3$	$+ 0,067$	$+ 0,121 = 0$;	32	$+19,2$	$+ 0,709$	$- 0,086 = 0$;
8	$-10,7$	$- 0,035$	$+ 0,121 = 0$;	33	$+11,0$	$- 0,985$	$+ 0,021 = 0$;
9	$-13,7$	$- 0,231$	$+ 0,119 = 0$;	34	$- 4,6$	$- 0,623$	$+ 0,095 = 0$;
10	$-10,6$	$+ 0,279$	$+ 0,117 = 0$;	35	$- 5,5$	$- 0,752$	$+ 0,080 = 0$;
11	$+ 2,4$	$- 0,999$	$- 0,002 = 0$;	36	$+ 6,3$	$- 0,304$	$- 0,116 = 0$;
12	$+ 8,8$	$- 0,990$	$- 0,017 = 0$;	37	$+ 4,5$	$- 0,106$	$- 0,121 = 0$;
13	$-14,1$	$+ 0,630$	$+ 0,095 = 0$;	38	$+ 6,6$	$- 0,688$	$+ 0,088 = 0$;
14	$- 8,6$	$- 0,098$	$+ 0,121 = 0$;	39	$-12,5$	$+ 0,167$	$+ 0,120 = 0$;
15	$- 9,3$	$- 0,290$	$+ 0,117 = 0$;	40	$+ 6,2$	$- 0,471$	$- 0,108 = 0$;
16	$- 9,2$	$+ 0,667$	$+ 0,091 = 0$;	41	$- 0,4$	$- 0,943$	$+ 0,043 = 0$;
17	$-10,7$	$+ 0,249$	$+ 0,118 = 0$;	42	$+ 2,8$	$- 0,960$	$+ 0,036 = 0$;
18	$- 9,6$	$+ 0,196$	$+ 0,119 = 0$;	43	$+ 9,8$	$+ 0,241$	$- 0,118 = 0$;
19	$- 8,9$	$+ 0,144$	$+ 0,121 = 0$;	44	$-10,6$	$+ 0,372$	$+ 0,113 = 0$;
20	$+ 4,0$	$- 0,999$	$- 0,005 = 0$;	45	$- 8,6$	$- 0,801$	$+ 0,073 = 0$;
21	$+ 6,5$	$- 0,583$	$- 0,099 = 0$;	46	$- 1,8$	$+ 0,469$	$- 0,108 = 0$;
22	$- 6,6$	$+ 0,655$	$+ 0,092 = 0$;	47	$+ 2,3$	$+ 0,563$	$- 0,101 = 0$;
23	$- 8,6$	$+ 0,605$	$+ 0,097 = 0$;	48	$- 1,2$	$+ 0,651$	$- 0,093 = 0$;
24	$-10,2$	$- 0,917$	$+ 0,049 = 0$;	49	$+ 5,7$	$- 0,965$	$+ 0,032 = 0$;
25	$+ 5,4$	$- 0,108$	$- 0,121 = 0$;	50	$+ 5,4$	$+ 0,941$	$- 0,041 = 0$;

51 — 8,"5	+ 0,"001 di	+ 0,"122 $d\Omega$	= 0;
52 + 8, 2	+ 0, 562	— 0, 101	= 0;
53 + 9, 7	— 0, 354	— 0, 114	= 0;
54 + 9, 4	— 0, 972	— 0, 029	= 0;
55 + 0, 0	+ 0, 982	+ 0, 023	= 0;
56 — 6 1,	— 0, 365	+ 0, 114	= 0;
57 — 1, 4	+ 0, 933	— 0, 044	= 0;
58 —14, 6	— 0, 458	+ 0, 108	= 0;
59 +14, 6	— 0, 294	— 0, 117	= 0;
60 +10, 4	— 0, 997	— 0, 009	= 0;
61 + 9, 2	— 0, 462	+ 0, 108	= 0;
62 + 4, 9	— 0, 976	+ 0, 027	= 0;
63 + 6, 9	— 0, 987	+ 0, 020	= 0;
64 +13, 3	— 0, 452	— 0, 109	= 0;
65 — 1, 5	— 0, 995	+ 0, 012	= 0;
66 — 4, 8	+ 0, 519	+ 0, 104	= 0;
67 +12, 4	— 0, 667	— 0, 090	= 0;
68 + 3, 6	— 0, 909	+ 0, 051	= 0;
69 —16, 2	+ 0, 047	+ 0, 122	= 0;
70 + 0, 0	— 0, 201	+ 0, 119	= 0;
71 — 6, 1	— 0, 639	+ 0, 094	= 0;
72 — 5, 0	— 0, 675	+ 0, 090	= 0;
73 + 9, 9	— 0, 995	— 0, 012	= 0;
74 + 4, 4	— 0, 986	— 0, 020	= 0;
75 + 2, 4	— 0, 972	— 0, 029	= 0;
76 +13, 3	— 0, 954 di	— 0, 037 $d\Omega$	= 0;
77 — 1, 4	— 0, 930	— 0, 045	= 0;
78 —10, 0	— 0, 603	+ 0, 097	= 0;
79 — 7, 4	— 0, 642	+ 0, 093	= 0;
80 —17, 2	— 0, 267	+ 0, 118	= 0;
81 — 2, 4	— 0, 313	+ 0, 116	= 0;
82 —13, 4	— 0, 403	+ 0, 112	= 0;
83 — 3, 1	— 0, 446	+ 0, 109	= 0;
84 — 5, 6	— 0, 488	+ 0, 107	= 0;
85 + 0, 9	— 0, 570	+ 0, 100	= 0;
86 + 3, 8	— 0, 609	+ 0, 097	= 0;
87 — 7, 1	— 0, 683	+ 0, 089	= 0;
88 —11, 5	— 0, 718	+ 0, 085	= 0;
89 — 0, 1	— 0, 751	+ 0, 081	= 0;
90 —10, 2	— 0, 783	+ 0, 076	= 0;
91 — 6, 5	— 0, 890	— 0, 056	= 0;
92 + 8, 9	— 0, 699	— 0, 088	= 0;
93 — 9, 7	+ 0, 335	+ 0, 115	= 0;
94 — 9, 9	+ 0, 124	+ 0, 121	= 0;
95 — 6, 8	— 0, 129	+ 0, 121	= 0;
96 —18, 1	— 0, 364	+ 0, 114	= 0;
97 —14, 9	— 0, 408	+ 0, 111	= 0;
98 — 8, 5	— 0, 451	+ 0, 109	= 0;
99 —13, 7	— 0, 494	+ 0, 106	= 0;
100— 7, 5	— 0, 535	+ 0, 103	= 0;

Ex his aequationibus, per methodum minimorum quadratorum tractatis emergit

$$+ 154,"440 + 76,"020\, di - 6,"604\, d\Omega = 0;$$
$$- 122, 140 - 6, 604 + 1, 759 = 0;$$
$$di = + 5,"9 \quad ; \quad d\Omega = + 91,"74.$$

Substitutis hisce valoribus in aequationibus conditionis eorum errores sunt:

Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error
1	— 2,"5	13	— 1,"8	25	— 6,"3	37	— 7,"1	49	+ 2,"9	61	+16,"4
2	— 3, 8	14	+ 1, 8	26	— 0, 8	38	+10, 6	50	+ 6, 4	62	+ 1, 6
3	— 3, 8	15	— 0, 3	27	— 5, 1	39	— 0, 5	51	+ 2, 7	63	+ 3, 0
4	+ 0, 9	16	+ 2, 9	28	+ 7, 6	40	— 6, 1	52	+ 2, 2	64	+ 0, 6
5	+10, 4	17	+ 1, 5	29	— 3, 4	41	— 2, 0	53	— 2, 9	65	— 1, 3
6	+ 4, 3	18	+ 2, 3	30	— 2, 5	42	+ 0, 4	54	+ 0, 9	66	+ 7, 9
7	—10, 9	19	— 3, 0	31	— 4, 1	43	+ 0, 4	55	+ 7, 9	67	+ 0, 3
8	— 1, 5	20	— 2, 4	32	+15, 5	44	+ 1, 9	56	+ 2, 1	68	+ 3, 0
9	— 4, 2	21	— 6, 0	33	+ 7, 1	45	— 6, 6	57	+ 0, 1	69	— 4, 7
10	+ 1, 7	22	+ 5, 7	34	— 9, 6	46	— 8, 8	58	— 7, 4	70	— 9, 7
11	— 3, 7	23	+ 3, 9	35	— 8, 4	47	— 3, 7	59	+ 1, 9	71	— 1, 3
12	+ 1, 4	24	— 9, 3	36	— 6, 2	48	— 5, 9	60	— 3, 7	72	— 0, 8

Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error	Nro.	Error
73	+ 8,″9	78	— 4,″7	83	+ 4,″3	88	— 7,″9	93	+ 2,″9	98	— 1,″2
74	— 7, 2	79	— 2, 7	84	+ 1, 3	89	+ 3, 0	94	— 1, 9	99	— 6, 9
75	— 6, 0	80	— 8, 0	85	+ 6, 7	90	— 7, 8	95	+ 3, 5	100	— 1, 2
76	+ 4, 3	81	+ 6, 4	86	+ 9, 1	91	—16, 9	96	— 9, 8		
77	—11, 0	82	— 5, 5	87	— 2, 8	92	— 3, 3	97	— 7, 1		

Sine correctione summa quadratorum errorum $= 7706''$
cum correctione . . . . . $= 3466$

Ex transitibus supra discussis sequebatur

$$di = -10,''3 \; ; \; d\Omega = +64,''17$$

Pro inclinatione correctionem, ex centum latitudinibus geocentricis elicitam, praeferendam esse existimavi. Quapropter correctionis, ex transitibus derivatae nullam curam habens sumsi

Inclinationem orbitae Mercurii pro anno 1800 $= 7^\circ\ 0'\ 5,''9$.

Quod vero ad nodum attinet, utraque correctio eumdem fere habere videtur valorem. Quare erit

$$d\Omega = \frac{91,''74 + 64,''17}{2} = +77,''96 \; ;$$

longitudo nodi pro anno 1750 . . . . $= 1^S\ 15^\circ\ 22'\ 1,''0$.

Atque sic orbita a Mercurio circa Solem descripta, secundum ejus et dimensiones et situm, perfecte determinata est.

Pro massa Veneris habebitur:

I. *ex annua nodi variatione* $+ 0,''0419 - 4,054\ \mu' = 0$;
II. *ex annua aphelii variatione* $+ 0,6186 - 3,023\ \mu' = 0$;

inde

$$2,0379 + 25,574\ \mu' = 0;$$

ex aequatione III. habebitur $\mu' = +0,07970$
$\mu' = +0,11315$

et sumto medio arithmetico $\mu' = +0,09643$;

Quodsi ponamus massam Veneris, qualem illust. La Place (*Méc. cél.* T. III. p. 61) definivit $= 1$, erit massa correcta

$$= 1 + 0,09643 = \frac{1}{383137} \cdot 1,09643 = \frac{1}{349440};$$

Jam in unum omnibus congestis, quae ex singulis hujus disquisitionis sectionibus emerserunt, haec prodeunt elementa, quibus novae meae Mercurii tabulae nituntur;

Epocha long. med. ☿ ad ann. 1750 pro merid. Seeberg.		8^S	13°	5′	17,″1
Aphelium 1750		8	13	33	24, 3
Nodus 1750		1	15	22	1, 0
Inclinatio orbitae 1800			7	0	5, 9
Excentricitas 1800			0,2056163		
Semi-axis major			0,3870938		
Motus medius annuus		1^S	23°	43′	3,″613
Motus medius in 100 annis Jul.		2	14	4	35, 64
Variatio saecularis aphelii		+	1	33	22, 9
– –	Nodi	+	1	10	15, 1
– –	Excentricitatis	+	0,″791		
– –	Inclinationis	+	18,″380		

Exhinc habebitur porro, (*t.* numerus annorum ab 1800 praeterlapsorum)

$$\begin{aligned}\text{Aequatio centri} = &-(84379,''23 + 0,''0157\,t)\ sin\ (\lambda - P)\\ &+(10733,16 + 0,0039\,t)\ sin\,2\,(\lambda - P)\\ &-(1892,19 + 0,0008\,t)\ sin\,3\,(\lambda - P)\\ &+(381,17 + 0,0002\,t)\ sin\,4\,(\lambda - P)\\ &-82,57\ sin\,5\,(\lambda - P)\\ &+18,72\ sin\,6\,(\lambda - P)\\ &-4,39\ sin\,7\,(\lambda - P)\\ &+1,04\ sin\,8\,(\lambda - P)\\ &-0,25\ sin\,9\,(\lambda - P)\end{aligned}$$

Radius vector

$$\begin{aligned}= &+(0,3952818 + 0,00000003\,t)\\ &+(0,0783361 + 0,00000020\,t)\ cos\,(\lambda - P)\\ &-(0,0079541 + 0,00000004\,t)\ cos\,2(\lambda - P)\\ &+(0,0012126 + 0,00000001\,t)\ cos\,3(\lambda - P)\\ &-0,0002191\ cos\,4\,(\lambda - P)\\ &+0,0000435\ cos\,5\,(\lambda - P)\\ &-0,0000092\ cos\,6\,(\lambda - P)\\ &+0,0000021\ cos\,7\,(\lambda - F)\\ &-0,0000005\ cos\,8\,(\lambda - P)\end{aligned}$$

sin. latit. helioc. $= sin\ 7°\ 0'\ 5,''9\ sin\,(\lambda' - \Omega) + t\ 0,''184\ cos\ 7°\ 0'\ 5,''9\ sin\,(\lambda' - \Omega)$

reduct. ad eclipticam $= -771,''93\ sin\ 2\,(\lambda' - \Omega) + 1,''43\ sin\ 4\,(\lambda' - \Omega)$

Designant λ, λ' longitudinem heliocentricam mediam et veram in orbita.

Definitis, quae ad motum Mercurii ellipticum spectant, restat adhuc, ut de illius perturbationibus periodicis agamus. Theoriam Mercurii ab ill. La Place (*Méc. cél.* T. III. p. 95) constitutam adhibentes, et rite illius aequationes cum Veneris massa, quam modo indagavimus, computantes, pro vera Mercurii longitudine in orbita hanc nanciscimur expressionem

$= \lambda$ — aequatio centri

Arg. II. $+ \begin{cases} - 0,''72 \sin (☿ - ♀) \\ + 1,\ 58 \sin 2\,(☿ - ♀) \\ + 0,\ 14 \sin 3\,(☿ - ♀) \end{cases}$

Arg. III. $+ \begin{cases} - 0,''57 \sin\ (☿ - ♃) \\ + 0,\ 12 \sin 2\,(☿ - ♃) \end{cases}$

Arg. IV. $+ 1,''17 \sin (☿ - 2♀) + 4,''19 \cos (☿ - 2♀)$

Arg. V. $+ 0,\ 55 \sin (2☿ - 3♀) + 1,\ 67 \cos (2☿ - 3♀)$

Arg. VI. $- 0,\ 50 \sin ♃ - 0,''12 \cos ♃$

Arg. VII. $+ 0,\ 88 \sin (☿ - 2♃) + 3,''16 \cos (☿ - 2♃)$

Arg. VIII. $+ 1,\ 33 \sin (3☿ - 5♀) - 1,\ 25 \cos (3☿ - 5♀)$

Arg. IX. $+ 0,\ 49 \sin (3♀ - ☿) + 0,\ 42 \cos (3♀ - ☿)$

Arg. X. $- 8,\ 05 \sin (2☿ - 5♀) - 4,\ 69 \cos (2☿ - 5♀)$

Arg. XI. $- 0,\ 65 \sin (☿ - 4♁) - 0,\ 24 \cos (☿ - 4♁)$

Ne tabularum autem volumen et calculi molestia plus, quam opus est, augerentur, minores quasdam aequationes, quas theoria ill. La Place suppeditat, hic excludendas esse putavimus. En neglectas

$- 0,''21 \sin (♁ - ☿) - 0,''16 \sin (♁ - ☿)$
$+ 0,\ 09 \sin ♀ - 0,''31 \cos ♀$
$- 0,\ 09 \sin (3☿ - 4♀) - 0,''31 \cos (3☿ - 4♀)$
$- 0,\ 05 \sin (2☿ - ♀) + 0,\ 09 \cos (2☿ - ♀)$
$+ 0,\ 12 \sin (3☿ - 2♀) - 0,\ 41 \cos (3☿ - 2♀)$
$+ 0,\ 03 \sin ♁ - 0,''09 \cos ♁$
$+ 0,\ 12 \sin (☿ - 2♁) + 0,''44 \cos (☿ - 2♁)$
$- 0,\ 06 \sin (2☿ - 3♁) - 0,\ 23 \cos (2☿ - 3♁)$
$- 0,\ 08 \cos ♄$
$- 0,\ 11 \sin (☿ - 2♄) - 0,''38 \cos (☿ - 2♄)$
$- 0,\ 19 \sin (2☿ - 4♁) + 0,\ 18 \cos (2☿ - 4♁)$

Perturbationes radii vectoris $=$

Arg. II. $+ \begin{cases} + 0{,}0000000405 \\ - 0{,}0000004415 \cos (☿ - ♀) \\ + 0{,}0000001677 \cos 2(☿ - ♀) \\ + 0{,}0000001835 \cos 3(☿ - ♀) \end{cases}$

Arg. V. $+ \begin{cases} - 0{,}0000003926 \cos (2☿ - 3♀) \\ + 0{,}0000014000 \sin (2☿ - 3♀) \end{cases}$

Arg. VII. $+ \begin{cases} - 0{,}0000008000 \cos (☿ - 2♃) \\ + 0{,}0000028520 \sin (☿ - 2♃) \end{cases}$

Arg. VIII. $+ \begin{cases} + 0{,}0000001267 \cos (3☿ - 5♀) \\ + 0{,}0000001180 \sin (3☿ - 5♀) \end{cases}$

Perturbationes latitudinis autem, cum valorem dimidii minutae secundae attingere nequeant, plane negligendae erant.

Hae itaque sunt formulae, quibus tabulae meae novae Mercurii innituntur. Earum adminiculo loca geocentrica, centum observationum temporibus respondentia computavi, et qui inde prodit calculi cum observatione consensus, eum sequens schema sistit:

Nro.	Annus et dies	Temp. med. Seeberg.	Long. vera ☿ ex observ.	Correct. element.	Latit. ver. ☿ ex observ.	Correct. element.
1	1775 Febr. 27	1h 51′ 43,″1	353° 56′ 24,″7	— 4, 2	+ 0° 8′ 29,″3	— 1,″3
2	– Decb. 11	23 12 40, 9	240 10 4, 2	— 3, 0	+ 1 45 23, 6	— 1, 7
3	1776 Aug. 1	23 28 26, 1	111 26 39, 3	— 0, 5	— 1 15 56, 1	— 2, 0
4	– Aug. 6	23 37 20, 4	118 2 28, 9	+ 0, 3	— 0 3 3, 8	+ 0, 4
5	1777 Maj. 25	2 18 25, 4	87 35 27, 7	— 1, 9	+ 1 59 43, 6	+ 5, 1
6	1777 Nov. 5	23 19 29, 6	206 12 44, 4	+ 5, 1	+ 2 12 4, 4	+ 2, 0
7	1778 Aug. 18	2 6 58, 1	166 53 0, 8	+ 2, 3	+ 0 10 37, 3	+ 4, 9
8	– Aug. 20	2 9 41, 5	169 52 24, 0	+ 1, 0	— 0 5 39, 1	— 0, 8
9	– Aug. 24	2 13 54, 3	175 33 17, 1	+ 2, 6	— 0 39 49, 0	— 2, 0
10	1779 Febr. 5	23 10 43, 9	191 45 11, 4	+ 4, 4	+ 0 54 5, 8	+ 0, 7
11	1779 Dec. 3	1 49 51, 3	269 2 53, 1	— 1, 6	— 2 21 24, 1	— 1, 8
12	1780 Maj. 28	23 9 18, 6	45 46 51, 1	+ 1, 6	— 2 46 59, 7	+ 0, 6
13	– Jul. 11	2 10 42, 7	129 8 10, 0	+ 2, 2	+ 1 30 57, 4	— 1, 0
14	– Jul. 25	2 33 41, 6	149 33 16, 0	+ 6, 0	— 0 19 22, 8	+ 0, 9
15	– Jul. 29	2 34 8, 0	154 5 39, 0	+ 7, 5	— 1 1 53, 0	— 1, 1
16	1782 Jun. 14	2 21 13, 0	105 56 54, 6	+ 5, 2	+ 1 49 20, 3	+ 1, 4
17	– Jun. 22	2 34 6, 2	116 27 6, 4	+ 3, 5	+ 0 52 5, 1	+ 0, 6
18	– Jun. 23	2 34 39, 4	117 33 1, 8	— 0, 5	+ 0 42 13, 5	+ 1, 2
19	– Jun. 24	2 34 57, 4	118 35 53, 8	+ 4, 0	+ 0 31 49, 3	— 1, 3
20	– Oct. 24	1 58 40, 0	235 6 44, 5	+ 5, 9	— 2 57 50, 6	— 1, 3
21	1783 Jul. 26	23 26 7, 7	104 42 14, 5	+ 5, 6	— 1 20 15, 1	— 2, 4
22	1784 Maj. 18	2 13 38, 9	80 32 34, 2	+ 5, 2	+ 2 11 24, 0	+ 3, 8
23	– Maj. 19	2 14 0, 1	81 30 37, 7	+ 6, 2	+ 2 6 0, 8	+ 1, 7
24	1784 Sept. 19	2 7 36, 0	203 9 3, 0	+ 3, 1	— 3 6 41, 0	— 4, 6
25	1785 Jan. 10	2 9 45, 2	309 38 5, 9	— 2, 5	— 0 15 32, 9	— 3, 0
26	1785 Jun. 21	23 11 12, 1	69 17 40, 9	+ 0, 2	— 2 47 49, 8	— 0, 3
27	– Aug. 28	2 20 25, 8	182 38 18, 0	+ 1, 5	— 2 13 52, 2	— 2, 2
28	– Decb. 29	2 0 18, 4	295 44 2, 8	— 3, 3	+ 0 1 21, 1	+ 3, 6
29	1786 Apr. 12	1 55 35, 1	42 21 35, 6	— 0, 1	+ 2 41 12, 0	— 1, 4
30	– Sept. 20	23 31 58, 4	161 2 34, 3	— 4, 4	+ 0 32 16, 1	— 1, 1
31	1786 Sept. 26	23 33 35, 8	167 24 25, 0	+ 1, 0	+ 1 34 59, 6	— 2, 0
32	1787 Mart. 21	1 51 26, 1	18 3 38, 2	+ 2, 2	+ 1 28 27, 1	+ 6, 8
33	– Maj. 18	23 4 57, 4	33 40 44, 3	+ 1, 1	— 3 7 13, 8	+ 3, 1
34	– Aug. 1	2 24 26, 0	154 33 37, 4	+ 3, 0	— 2 40 25, 2	— 4, 5
35	1788 Mart. 11	1 54 59, 3	9 37 14, 2	— 1, 2	— 2 28 6, 4	+ 3, 0
36	1788 Jul. 4	2 37 14, 3	129 21 16, 9	— 0, 7	+ 0 0 18, 8	+ 1, 2
37	1789 Febr. 20	2 2 24, 4	350 29 24, 0	— 0, 7	+ 1 17 8, 6	+ 1, 0
38	– Aug. 5	23 30 30, 7	115 28 42, 2	— 5, 5	— 0 51 3, 7	— 1, 5
39	1791 Jun. 26	22 21 19, 7	74 17 57, 0	— 6, 6	— 3 31 9, 9	+ 4, 2
40	– Jun. 27	22 20 40, 3	75 5 59, 9	+ 3, 6	— 3 21 15, 4	— 3, 4
41	1791 Jun. 28	22 20 20, 2	75 58 55, 9	— 3, 6	— 3 10 51, 6	— 3, 0
42	– Jun. 28	23 13 48, 1	76 0 50, 0	— 3, 4	— 3 10 30, 2	+ 0, 4
43	– Jun. 29	22 20 21, 0	76 55 48, 2	+ 8, 3	— 3 0 10, 4	+ 2, 1
44	– Jun. 30	22 20 41, 8	77 57 24, 8	— 4, 0	— 2 48 40, 4	— 5, 4
45	– Sept. 4	1 22 23, 3	88 13 48, 2	+ 2, 8	— 1 55 12, 8	— 2, 2

Nro.	Annus et dies	Temp. med. Seeberg.	Longit. ver. ☿ ex observ.	Correct. element.	Latit. ver. ☿ ex observ.	Correct. element.
46	1791 Sept. 5	1h 22′ 20,″0	89° 20′ 49,″0	+ 2,″2	— 2° 3′ 55,″0	— 1,″1
47	1792 Aug. 13	1 31 20, 0	167 25 40, 0	+ 0, 5	— 0 50 7, 5	— 3, 3
48	– – 14	1 31 44, 3	168 39 58, 2	+ 1, 7	— 0 59 53, 0	+ 2, 9
49	– – 16	1 32 5, 5	171 2 32, 2	— 1, 2	— 1 19 22, 5	— 2, 6
50	– – 17	1 32 4, 1	172 10 32, 5	+ 2, 6	— 1 29 21, 1	+ 2, 1
51	1792 Aug. 18	1 31 53, 0	173 16 16, 7	+ 6, 6	— 1 39 14, 0	+ 0, 5
52	– – 20	1 31 5, 7	175 20 44, 5	+ 3, 0	— 1 59 10, 1	+ 3, 0
53	– – 21	1 30 27, 5	176 19 16, 3	— 7, 3	— 2 9 46, 3	+ 4, 2
54	– – 23	1 29 1, 0	178 7 15, 2	+ 0, 8	— 2 28 40, 0	— 1, 3
55	– – 24	1 27 31, 0	178 56 59, 7	+ 3, 6	— 2 38 17, 0	— 3, 6
56	– – 25	1 26 9, 9	179 43 20, 2	+ 3, 3	— 2 47 53, 8	+ 1, 1
57	– – 26	1 24 35, 7	180 26 11, 6	+ 2, 6	— 2 57 7, 4	— 3, 8
58	1792 Decb. 11	1 9 38, 1	279 53 46, 4	— 0, 9	— 2 6 59, 1	— 7, 9
59	– – 15	1 14 1, 9	284 32 24, 5	— 4, 5	— 1 42 33, 1	— 1, 5
60	1793 Apr. 7	1 53 19, 3	37 10 46, 7	+ 1, 3	+ 2 52 27, 1	+ 4, 0
61	1793 Jul. 19	1 28 2, 0	139 56 9, 0	— 5, 5	+ 0 54 57, 0	+ 1, 2
62	– – 23	1 35 15, 9	145 55 55, 1	— 4, 8	+ 0 22 11, 7	— 1, 0
63	– – 28	1 39 32, 9	152 17 4, 7	— 0, 3	— 0 25 26, 2	+ 1, 2
64	– Aug. 2	1 32 49, 3	157 54 4, 4	— 4, 2	— 1 19 13, 7	+ 1, 0
65	– – 2	1 39 22, 3	157 51 43, 8	— 7, 3	— 1 18 41, 1	— 4, 7
66	– – 3	1 39 50, 4	158 50 51, 0	— 2, 1	— 1 29 44, 8	— 3, 3
67	– – 4	1 38 8, 0	159 47 11, 3	— 1, 4	— 1 41 5, 6	— 0, 5
68	– – 5	1 37 13, 0	160 40 32, 0	— 7, 0	— 1 52 14, 6	— 3, 4
69	– – 6	1 36 7, 0	161 30 53, 2	— 0, 7	— 2 3 37, 9	— 0, 5
70	1794 Mart. 19	1 55 23, 5	17 40 32, 4	— 1, 1	+ 2 18 24, 1	+ 0, 1
71	1794 Jul. 22	2 30 26, 8	145 48 0, 8	— 1, 6	— 1 56 12, 7	— 3, 4
72	– Aug. 27	23 34 35, 3	137 34 30, 7	— 4, 5	— 0 46 57, 7	+ 0, 7
73	– Nov. 9	1 58 26, 2	249 52 51, 8	+ 5, 2	— 2 41 1, 3	— 1, 4
74	1795 Aug. 12	23 31 23, 2	121 58 41, 1	— 4, 1	— 1 13 27, 7	+ 8, 0
75	– Oct. 22	1 58 8, 1	232 53 47, 7	+ 0, 9	— 2 46 16, 0	+ 0, 6
76	1795 Oct. 23	1 58 34, 0	233 57 53, 1	+ 4, 2	— 2 49 16, 2	+ 1, 2
77	1796 Jul. 29	23 28 32, 4	108 47 38, 8	+ 3, 6	— 1 5 51, 7	+ 0, 2
78	– Oct. 10	1 59 55, 8	222 34 10, 9	+ 0, 2	— 3 9 4, 6	— 0, 4
79	1797 Maj. 23	2 16 3, 8	85 24 22, 7	+ 6, 3	+ 1 52 59, 6	+ 4, 0
80	– Jul. 13	23 22 25, 0	92 27 36, 2	+ 2, 5	— 1 40 46, 8	+ 0, 1
81	1797 Sept. 21	2 7 27, 8	205 0 16, 0	— 0, 3	— 3 1 46, 7	+ 1, 3
82	1798 Febr. 19	23 11 14, 5	305 20 54, 7	— 7, 3	+ 0 9 27, 4	— 2, 1
83	– – 24	23 14 3, 6	310 40 3, 0	— 5, 2	— 0 38 24, 8	— 4, 6
84	– Aug. 30	2 19 26, 5	184 19 4, 6	+ 2, 4	— 2 8 46, 4	— 1, 5
85	– – 31	2 18 57, 2	185 19 22, 1	+ 7, 5	— 2 17 51, 9	— 1, 3
86	1801 Apr. 27	23 3 27, 6	10 48 13, 0	— 6, 7	— 2 50 21, 4	— 3, 9
87	– Aug. 22	23 33 7, 6	131 33 47, 4	— 0, 3	— 0 47 1, 0	— 2, 6
88	– Aug. 24	23 33 22, 3	133 26 10, 6	— 0, 3	— 0 15 10, 4	— 3, 2
89	1802 Apr. 12	23 6 42, 5	355 30 12, 0	— 3, 9	— 2 24 45, 8	+ 4, 8
90	– Jun. 21	2 33 16, 8	114 34 58, 9	+ 4, 3	+ 0 37 35, 8	— 0, 2
91	1802 Aug. 7	23 29 40, 6	116 8 45, 6	— 1, 3	— 1 12 35, 3	— 3, 0
92	– Oct. 15	1 59 23, 9	225 46 55, 0	— 2, 4	— 2 44 19, 7	— 0, 8
93	– – 16	1 59 42, 5	226 51 5, 5	— 2, 4	— 2 48 27, 8	+ 0, 1
94	1803 Febr. 7	1 6 33, 8	336 1 58, 7	— 5, 4	+ 0 32 23, 2	+ 2, 0
95	– Jun. 4	1 23 25, 4	96 30 15, 7	+ 2, 9	— 1 23 38, 0	+ 1, 0

Nro.	Annus et dies	Temp. med. Seeberg.	Longit. ver. ☿ ex observ.	Correct. element.	Latit. ver. ☿ ex observ.	Correct. element.
96	1804 Sept. 12	$2^h\ 12'\ 48,''4$	$196^\circ\ 7'\ 31,''1$	$-\ 2,''1$	$-\ 2^\circ\ 40'\ 36,''0$	$-\ 3,''1$
97	1805 Oct. 3	$23\ 28\ 39,3$	$170\ 5\ 39,2$	$+\ 0,2$	$+\ 1\ 7\ 17,3$	$-\ 4,2$
98	– – 4	$23\ 27\ 52,4$	$173\ 52\ 24,5$	$-\ 1,3$	$+\ 1\ 18\ 23,2$	$-\ 1,6$
99	– – 5	$23\ 27\ 32,8$	$174\ 47\ 16,0$	$-\ 2,4$	$+\ 1\ 28\ 31,2$	$-\ 2,7$
100	1806 Maj. 27	$23\ 3\ 39,3$	$41\ 48\ 23,3$	$-\ 0,1$	$-\ 3\ 27\ 34,0$	$-\ 2,1$

Ut vero numerus centum observationum completus fieret, 103 ad calculum revocare cogebar, quia tres tamquam vitiosae repudiari debebant. Praeterea autem hoc videtur monendum esse, tutam et exactam declinationum derivationem ex distantiis a Zenith, inde ab hujus saeculi initio Grenovici observatis, interdum magnas habere difficultates, cum error collimationis per totum quadrantis arcum neutiquam pro constante habendus sit. Quae quidem res quum in tanta elementorum astronomicorum, observationibus grenovicensibus nixorum, multitudine maximi momenti sit: alio loco diligentius de ea disserere volumus.

Quoniam vero methodus, quae elementorum praestantiam ex consensu cum observationibus, quae antea iis constituendis inservierant, demonstrare conatur, certo respectu pro circulo possit haberi: addendam censui comparationem cum recentiorum serie observationum:

Annus et dies	Temp. med. Seeberg.	Long. geoc. ☿ observ. *)	Correct. element.	Latit. geocentr. ☿ observ.	Correct. element.	Nomen Observat.
1804 Sept. 9	$2^h\ 4'\ 43,''4$	$193^\circ\ 6'\ 51,''0$	$-\ 5,''7$	$-\ 2^\circ\ 16'\ 26,''8$	$-\ 1,''3$	BOUVARD
– – 13	$2\ 2\ 42,4$	$197\ 1\ 53,6$	$+\ 3,7$	$-\ 2\ 48\ 18,1$	$+\ 1,7$	–
– – 14	$2\ 1\ 48,1$	$197\ 53\ 42,2$	$+\ 3,8$	$-\ 2\ 55\ 44,2$	$+\ 4,2$	–
1805 Apr. 9	$1\ 10\ 36,8$	$28\ 46\ 34,2$	$+\ 5,3$	$+\ 0\ 27\ 44,9$	$-\ 1,4$	–
– – 10	$1\ 14\ 10,1$	$30\ 48\ 35,5$	$+\ 6,5$	$+\ 0\ 38\ 59,3$	$-\ 1,7$	–
– – 12	$1\ 21\ 4,9$	$34\ 47\ 7,9$	$-\ 1,6$	$+\ 1\ 1\ 19,2$	$-\ 0,3$	–
– – 13	$1\ 24\ 24,8$	$36\ 43\ 10,3$	$+\ 0,7$	$+\ 1\ 12\ 7,7$	$-\ 3,3$	–
– Aug. 2	$1\ 53\ 41,4$	$148\ 8\ 53,6$	$+\ 1,5$	$+\ 1\ 6\ 42,0$	$+\ 3,4$	–
– – 3	$1\ 55\ 58,2$	$149\ 48\ 31,0$	$-\ 0,2$	$+\ 1\ 0\ 20,9$	$+\ 3,9$	–
– – 11	$2\ 9\ 19,6$	$162\ 7\ 1,3$	$-\ 3,1$	$-\ 0\ 1\ 16,6$	$-\ 3,1$	–
– – 26	$2\ 12\ 16,9$	$179\ 58\ 32,1$	$+\ 2,8$	$-\ 2\ 23\ 20,8$	$-\ 1,2$	–
– Oct. 12	$23\ 24\ 52,0$	$183\ 54\ 4,0$	$+\ 5,5$	$+\ 1\ 59\ 57,0$	$+\ 2,2$	–
– – 18	$23\ 36\ 45,9$	$193\ 38\ 41,6$	$+\ 5,0$	$+\ 1\ 50\ 41,8$	$+\ 2,2$	–
1807 Mart. 22	$1\ 45\ 50,6$	$19\ 31\ 52,9$	$-\ 0,1$	$+\ 2\ 12\ 49,0$	$-\ 0,7$	–
– – 24	$1\ 44\ 50,7$	$21\ 30\ 21,7$	$+\ 5,9$	$+\ 2\ 33\ 54,2$	$+\ 2,8$	–
– – 26	$1\ 42\ 13,2$	$23\ 1\ 0,7$	$+\ 3,0$	$+\ 2\ 51\ 42,0$	$+\ 0,8$	–
– Maj. 21	$23\ 5\ 9,5$	$38\ 33\ 37,2$	$+\ 4,7$	$-\ 2\ 34\ 41,0$	$-\ 5,0$	–
– – 22	$23\ 7\ 12,5$	$40\ 8\ 36,4$	$+\ 2,6$	$-\ 2\ 27\ 57,8$	$-\ 4,6$	–
– – 23	$23\ 9\ 26,2$	$41\ 46\ 2,4$	$+\ 4,9$	$-\ 2\ 20\ 43,3$	$-\ 5,1$	–
– – 25	$23\ 14\ 26,3$	$45\ 8\ 1,4$	$-\ 1,0$	$-\ 2\ 4\ 52,5$	$-\ 3,3$	–

*) Vera ab aequinoctio medio.

Annus et dies			Temp. med. Seeberg.			Long. geoc. ☿ observ.			Correct. element.	Latit. geocentr. ☿ observ.			Correct. element.	Nomen Observat.
1807	Jun.	24	1^h	32′	1,″7	104°	51′	59,″9	— 4,″1	+ 1°	54′	39,″2	— 2,″8	Bouvard
–	–	29	1	52	54, 9	114	16	21, 6	— 5, 3	+ 1	51	50, 7	— 1, 4	–
–	Jul.	9	2	19	56, 8	130	25	13, 7	— 6, 1	+ 1	0	15, 0	+ 3, 4	–
–	–	10	2	21	34, 7	131	50	8, 2	— 5, 4	+ 0	52	18, 6	+ 6, 4	–
–	–	11	2	23	1, 3	133	12	51, 6	— 1, 0	+ 0	43	50, 6	+ 4, 0	–
–	–	12	2	24	16, 1	134	33	12, 0	— 3, 3	+ 0	34	57, 9	+ 2, 1	–
–	–	13	2	25	19, 1	135	51	8, 3	+ 4, 3	+ 0	25	39, 0	— 0, 6	–
–	–	17	2	27	37, 1	140	38	54, 9	— 2, 3	— 0	14	55, 5	— 5, 7	–
1808	Maj.	1	22	30	26, 7	18	5	7, 7	+ 4, 7	— 2	47	36, 6	+ 4, 3	Lindenau
–	–	2	22	32	0, 5	19	35	19, 1	— 0, 6	.	.	.	.	–
–	–	3	22	33	43, 1	21	7	52, 1	+ 3, 5	.	.	.	.	–
–	–	4	22	35	31, 8	22	42	1, 3	— 3, 4	— 2	37	56, 9	+ 0, 9	–
–	–	5	22	57	28, 6	24	18	40, 0	+ 3, 5	— 2	32	37, 3	+ 0, 1	–
–	–	6	22	39	34, 3	25	56	48, 4	+ 2, 9	— 2	28	42, 8	— 5, 1	–
–	–	7	22	41	47, 3	27	37	1, 5	+ 3, 7	— 2	23	28, 1	+ 8, 9	–
1809	Maj.	9	22	47	39, 7	31	3	59, 2	+ 5, 8	— 2	11	9, 4	— 4, 4	–
–	Oct.	4	1	17	16, 5	215	13	14, 7	+ 4, 7	— 2	22	53, 4	— 3, 8	–
1812	Aug.	3	1	38	27, 2	154	36	10, 3	— 3, 3	+ 0	17	8, 5	+ 1, 6	Pabst
–	–	19	1	41	47, 3	173	33	45, 7	— 0, 8	.	.	.	.	–
–	–	24	1	33	59, 9	177	9	45, 6	— 0, 7	.	.	.	.	–
1813	Jul.	8	1	20	18, 0	123	25	8, 8	+ 4, 7	+ 1	43	23, 6	+ 3, 2	Lindenau
–	–	12	1	32	18, 5	130	15	15, 1	+ 3, 1	+ 1	25	11, 7	+ 0, 7	–
–	–	15	1	39	22, 8	135	1	49, 3	+ 2, 1	+ 1	6	22, 8	+ 2, 5	–

Differentiae locorum Mercurii observatorum et ex elementis deductorum ubique tam parvae sunt, ut aliqua eorum correctio probabilis neutiquam inde emergat. Confidenter itaque speramus, et in proximis annorum decadibus semper parem locum habituram esse concordantiam, et elementa orbitae Mercurii, quae supra investigavimus, gravi errore nullo modo affectum iri.

Jam de tabulis ex hisce elementis constructis pauca modo monenda videntur, in quibus a vulgari tabularum constructione discessi. Tab. II. continet epochas annorum 1750 — 1900; quarum ad quemvis alium annum obtinendarum causa methodum cl. Delambre, prima vice in ejus tabulis solaribus (*Tables astronom. publiées par le bureau des longit. de France. Première partie. Paris 1806*) expositam secutus sum, sic ut additio unius versus ex Tab. III epochas pro seculis prioribus et posterioribus praebeat. In formatione argumentorum perturbationum methodum adhibui, quam nuperrime cl. Carlini (*Esposizione di un nuovo metodo di costruire le tavole astronomiche applicato alle tavole del Sole di Francesco Carlini. Milano 1810*) proposuit, illa nempe per unitatem motus medii diurni exprimendi. Sit exempl. gr. motus medius diurnus argumenti ☿ — ♀ = m, tunc pro qualibet epocha tabula II habet valores = $\frac{☿ - ♀}{m}$. Secundum hanc metho-

dum epochae argumentorum pro integris annis solummodo in tabulas recipiendae erant, cum illorum reductio ad datum anni diem per additionem numeri dierum, ab initio anni praeterlapsorum, directe obtineatur. Cujus additionis causa ne peculiaris tabula requireretur, mensium diebus adjectus fuit numerus dierum anni currentium.

Omnes perturbationum tabulae constructae sunt pro valoribus zero usque ad $\left(\frac{360^\circ}{m^\circ} + 365\right)$. Pro omnibus annis, qui in tabula II per se ipsi continentur, etiam argumentorum valores nunquam hunc terminum excedunt. Quando vero pro epochis remotioribus tab. III uti necesse erit, tunc fieri potest, ut argumenta perturbationum superent tabularum fines. Quantitates tum a quolibet argumento subtrahendae sequenti continentur tabella:

Arg.	Excedens valorem	Quantitas subtrah.
II.	510	145
III.	455	90
IV.	770	405
V.	472	107
VI.	4700	4335
VII.	457	92
VIII.	449	84
IX.	869	504
X.	2436	2071
XI.	2765	2400

Quantitatum constantium additione omnes longitudinis heliocentricae et radii vectoris perturbationes positivae factae sunt. A perturbationum summa in longitudine detrahendae sunt 31 minutae secundae, et ab illis radii vectoris quantitas 0,0000087.

I. Quantitates constantes pro perturbationibus in longitudine heliocentrica.

Tab. VII.	Arg. II.	seu	☿	— ♀	quantitas constans	+ 3″
Tab. VIII.	Arg. III.	–	☿	— ♃	. . . . .	+ 1″
Tab. IX.	Arg. IV.	–	☿	— 2♀	. . . . .	+ 5″
Tab. X.	Arg. V.	–	2☿	— 3♀	. . . . .	+ 2″
Tab. XI.	Arg. VI.	–	♃	. . . . .		+ 1″
Tab. XII.	Arg. VII.	–	☿	— 2♃	. . . . .	+ 4″
Tab. XIII.	Arg. VIII.	–	3☿	— 5♀	. . . . .	+ 3″
Tab. XIV.	Arg. IX.	–	3♀	— ☿	. . . . .	+ 1″
Tab. XV.	Arg. X.	–	2☿	— 5♀	. . . . .	+ 10″
Tab. XVI.	Arg. XI.	–	☿	— 4♁	. . . . .	+ 1″

II. Quantitates constantes pro perturbationibus radii vectoris.

Tab. XVIII	Arg. II.	seu	☿	— ♀	quantitas constans	+ 0,0000018
Tab. XIX	Arg. V.	–	2☿	— 3♀	. . . . .	+ 0,0000015
Tab. XX	Arg. VII.	–	☿	— 2♃	. . . . .	+ 0,0000036
Tab. XXI	Arg. VIII.	–	3☿	— 5♀	. . . . .	+ 0,0000018

Constantem 31 minutarum secundarum pro longitudine heliocentrica valoribus reductionis ad eclipticam adjecimus, sic ut illius causa peculiari subtractione opus non sit.

Operosum tabularum aequationis centri et radii vectoris calculum BERNH. NICOLAI, eximius cl. GAUSS discipulus, cujus praeclara in evolvendis calculis astronomicis solertia et peritia astronomis jam aliunde innotuit (*Mon. Corr.* Bd. XXVII pag. 201) humanissime suscepit.

Pro semidiametro et parallaxi peculiares tabulas propterea non construxi, quod Mercurii excentricitas nimia est, quam ut mediae alicujus distantiae suppositio permittenda sit, atque calculus ex tabulis, quae accurate illorum valores praebent, saepius molestior, quam directa eorum supputatio.

Ex copia satis magna selectarum mensurationum, partim ope micrometrorum factarum, partim ex observatis contactibus internis et externis in transitibus deductarum, innotuit mihi diameter Mercurii in distantia $= 1$

$$= 6,''46$$

Aberratio Mercurii in longitudine exhibetur formula

$$- 20,''255 \cos E - 32,''78 \cos P - 1,''76 \cos l - 6,''84 \sin l$$

($E =$ elongationi, $P =$ parallaxi annuae)

cujus valores tab. XXIII cum argumentis *elongationis*, *parallaxeos annuae*, *et longitudinis geocentricae* ☿, continentur.

Aberratio in latitudine geocentrica valorem $5 - 6$ minutarum secundarum nunquam superare potest, quare sine errandi periculo ex notissima expressione

$$\log (dist.\ ☿\ a\ ♁) + \log. (mot.\ diurnus) + 7,751007.$$

calculanda erit, adhibito illo diurno latitudinis geocentricae motu, qualem ephemerides suppeditant.

Jam saepius in votis astronomorum erat, ut ephemeridum editores inter elementa planetarum etiam distantias a terra reciperent; quod si fieret, procul dubio optima et facillima methodus, observationes ab effectu aberrationis liberandi, correctio temporis, ope formulae a cl. DUSEJOUR primo propositae

$$- 8'\ 12,''2\ (\text{dist. planetae a terra})$$

esset.

Usum tabularum completo loci Mercurii heliocentrici calculo illustravimus, ita ut et minus exercitatis nulla plane difficultas in illis adhibendis occurrere possit. Dabam in specula astronomica ERNESTINA, quae in monte Seeberg est. III. Id. Jun. a. MDCCCXIII.

PARADIGMA CALCULI.

Quaeritur longitudo et latitudo heliocentrica Mercurii et distantia ejus a Sole pro 1813 8. Jul. 1^h 20′ 18″ temp. med. Seebergens.

Observata est pro eodem tempore in specula astronomica Seebergensi longit. geoc. vera Mercurii 123° 25′ 8,″8 latit. geoc. vera + 1° 43′ 23,″6.

Longit. med. ☿			
pro	1813	3^s 8° 41′ 13,″0	
	8 Jul.	1 23 27 33, 4	
	1^h	10 13, 9	
	20′	3 24, 6	
	18	3, 2	
longit. med.		5^s 2° 22′ 28,″1	
aequat. centr.		+ 23 39 16, 4	
Perturb.		+ 23, 5	
long ver. ☿ in orb.		. . . . 5^s 26° 2′ 8,″0	
reduct. ad eclip.		+ 12 9, 3	
long. ver. in ecl.		5^s 26° 14′ 17, 3	
long. ☌ ☰		285° 52′ 5,″1	
elongat. ☰		17 32 59, 0	
long. geo. ver. ☰		123° 25′ 4,″1	
observ. ☰		123 25 8, 8	
correct. tab. ☰		+ 4,″7	

Aphelium	
	8^s 14° 32′ 14″
	29
	8^s 14° 32′ 43″
	5 2 22 28
	8^s 17° 49′ 45″
Anom. med.	
Aequ. cent.	+ 23° 39′ 16,″2
Variatio saecularis . .	+ 0, 2
	+ 23° 29′ 16,″4
rad. vect.	0,3865570
var. saec. . . .	0
perturb. . .	+ 82
const. . .	− 87
r ☰	0, 3865565
log r ☰	9, 5872130
log cos β ☰	9, 9980937
log. dist. curt.	9, 5853067

Nodus	
	1^s 16° 6′ 16″
	22
	1^s 16° 6′ 38″
	5 26 2 8
	4^s 9° 55′ 30″
Arg. latit.	
lat. hel.	+ 5° 21′ 50,″0
variatio saec.	+ 1, 9
	5° 21′ 51,″9
lat. geoc.	1° 43′ 20,″4
observ.	1 43 23, 6
correct. tab.	+ 3.″2

II	III	IV	V	VI	VII	VIII	IX	X	XI
107	85	84	101	1404	57	13	166	1809	400
189	189	189	189	189	189	189	189	189	189
296	274	273	290	1593	246	202	355	1999	589

Perturbationes

Arg.	in long.	Rad. vect.
II	3,6	29
III	0,9	
IV	2,1	
V	1,3	28
VI	0,7	
VII	2,1	11
VIII	4,8	14
IX	0,4	
X	7,2	
XI	0,4	
Sa.	23, 5	82

Pro Aberratione in longit. geocentrica

Elong.	17° 33′	P. I	− 19, 4
Par. ann. . . .	52 48	II	− 19, 7
long. geoc.	123 25	III	− 4, 6
Aberrat. in longit.			− 43,″7

VALORES

quantitatum auxiliarium A, B, C, D.

vid. pag. 17

Argumentum anom. med. ☿.						*Argumentum anom. med.* ☿.					
Arg.	A.	B.	C.	D.	Arg.	Arg.	A.	B.	C.	D	Arg.
0°	+0,326+	+0,000−	+0,000−	+0,387+	360°	90°	+0,096+	+0,075−	+1,831−	+0,150+	270°
2	0,325	0,002	0,043	0,387	358	92	0,085	0,075	1,860	0,139	268
4	0,325	0,004	0,086	0,387	356	94	0,073	0,076	1,888	0,128	266
6	0,325	0,006	0,129	0,386	354	96	0,061	0,077	1,915	0,116	264
8	0,324	0,008	0,173	0,386	352	98	0,048	0,078	1,941	0,104	262
10	+0,324+	+0,009−	+0,216−	+0,385+	350	100	+0,035+	+0,079−	+1,966−	+0,092+	260
12	0,323	0,011	0,260	0,383	348	102	0,022	0,079	1,989	0,079	258
14	0,322	0,013	0,303	0,382	346	104	+0,007+	0,080	2,011	0,066	256
16	0,320	0,015	0,347	0,381	344	106	−0,007−	0,080	2,030	0,053	254
18	0,319	0,017	0,391	0,379	342	108	0,022	0,081	2,048	0,040	252
20	+0,317+	+0,019−	+0,435−	+0,377+	340	110	−0,036−	+0,081−	+2,064−	+0,026+	250
22	0,316	0,021	0,479	0,375	338	112	0,053	0,081	2,078	+0,012+	248
24	0,314	0,023	0,524	0,372	336	114	0,069	0,081	2,089	−0,002−	246
26	0,311	0,025	0,568	0,370	334	116	0,086	0,081	2,097	0,017	244
28	0,309	0,026	0,613	0,367	332	118	0,103	0,081	2,102	0,031	242
30	+0,306+	+0,028−	+0,658−	+0,364+	330	120	−0,120−	+0,081−	+2,104−	−0,046−	240
32	0,303	0,030	0,702	0,360	328	122	0,138	0,080	2,104	0,062	238
34	0,300	0,032	0,747	0,356	326	124	0,157	0,080	2,098	0,077	236
36	0,296	0,034	0,792	0,352	324	126	0,175	0,079	2,088	0,093	234
38	0,292	0,036	0,836	0,348	322	128	0,194	0,078	2,073	0,108	232
40	+0,288+	+0,038−	+0,881−	+0,344+	320	130	−0,213−	+0,077−	+2,054−	−0,124−	230
42	0,284	0,039	0,925	0,339	318	132	0,232	0,076	2,031	0,140	228
44	0,279	0,041	0,969	0,334	316	134	0,252	0,075	2,003	0,155	226
46	0,274	0,043	1,013	0,329	314	136	0,271	0,073	1,970	0,171	224
48	0,269	0,045	1,056	0,324	312	138	0,291	0,071	1,931	0,187	222
50	+0,264+	+0,046−	+1,099−	+0,318+	310	140	−0,310−	+0,070−	+1,887−	−0,202−	220
52	0,258	0,048	1,141	0,312	308	142	0,329	0,068	1,838	0,217	218
54	0,252	0,050	1,183	0,306	306	144	0,348	0,065	1,783	0.232	216
56	0,246	0,052	1,224	0,299	304	146	0,367	0,063	1,722	0,247	214
58	0,239	0,053	1,264	0,292	302	148	0,385	0,060	1,656	0,261	212
60	+0,232+	+0,055−	+1,305−	+0,285+	300	150	−0,402−	+0,058−	+1,585−	−0,275−	210
62	0,225	0,056	1,345	0,278	298	152	0,419	0,055	1,508	0,288	208
64	0,218	0,058	1,384	0,271	296	154	0,436	0,051	1,426	0,301	206
66	0,210	0,059	1,423	0,263	294	156	0,451	0,048	1,339	0,313	204
68	0,202	0,061	1,460	0,255	292	158	0,466	0,045	1,246	0,324	202
70	+0,194+	+0,062−	+1,497−	+0,246+	290	160	−0,479−	+0,041−	+1,149−	−0,334−	200
72	0,185	0,064	1,534	0,238	288	162	0,492	0,037	1,047	0,344	198
74	0,177	0,065	1,570	0,229	286	164	0,504	0,034	0,942	0,353	196
76	0,168	0,066	1,605	0,220	284	166	0,514	0,030	0,833	0,361	194
78	0,158	0,068	1,639	0,211	282	168	0,523	0,026	0,720	0,367	192
80	+0,149+	+0,069−	+1,673−	+0,201+	280	170	−0,531−	+0,021−	+0,605−	−0,373−	190
82	0,139	0,070	1,706	0,192	278	172	0,537	0,017	0,487	0,378	188
84	0,129	0,071	1,738	0,182	276	174	0,542	0,013	0,367	0,382	186
86	0,119	0,072	1,770	0,171	274	176	0,546	0,009	0,245	0,385	184
88	0,107	0,073	1,801	0,161	272	178	0,548	0,004	0,123	0,387	182
90	+0,096+	+0,075−	+1,831−	+0,150+	270	180	0,549	+0,000−	+0,000−	−0,387−	180

TABULAE MERCURII

NOVAE ET CORRECTAE

EX

THEORIA GRAVITATIS

ILLUSTR. DE LA PLACE

ET EX

OBSERVATIONIBUS RECENTISSIMIS

DEDUCTAE.

TABULA I.

Specularum astronomicarum differentia a Meridiano SEEBERGENSI in tempore, et latitudo geographica, cum reductione Epocharum medii motus Mercurii.

Nomina Specularum		Differ. Merid. in tempore	Latitudo	Reductio Epoch. motus med. ☿
		h ′ ″	° ′ ″	′ ″
Aboa	Finniae	0 46 13, or.	60 27 7	— 7 52, 8
Agria	Hungariae	0 38 37, or.	47 53 54	— 6 35, 1
Alba Carolina	Hungariae	0 51 22, or.	46 4 21	— 8 45, 5
Alexandria	Aegypti	1 16 47, or.	31 13 5	— 13 5, 6
Amstelodanum	Bataviae	0 23 24, oc.	52 22 17	+ 3 59, 4
Barcino	Hispaniae	0 34 13, oc.	41 22 53	+ 5 50, 0
Berolinum	Brandenb.	0 10 30, or.	52 31 45	— 1 47, 4
Blenheim	Angliae	0 48 18, oc.	51 50 29	+ 8 14, 2
Bononia	Italiae	0 2 27, or.	44 29 56	— 0 25, 1
Bostonium	Amer. sept.	5 26 51, oc.	42 21 11	+ 55 44, 0
Brema	Saxon. infer.	0 7 44, oc.	53 4 46	+ 1 19, 1
Brunsvicum	Saxon. infer.	0 0 48, oc.	52 15 29	+ 0 8, 2
Buda	Hungariae	0 33 14, or.	47 29 44	— 5 40, 0
Budissina	Lusatiae	0 14 46, or.	51 10 35	— 2 31, 0
Cairo	Aegypti	1 22 19, or.	30 2 21	— 14 2, 2
Cantabrigia	Angliae	0 42 38, oc.	52 12 36	+ 7 16, 2
Casella	Westphal.	0 5 7, oc.	51 19 20	+ 0 52, 3
Cella	Westphal.	0 2 43, oc.	52 37 49	+ 0 27, 8
Coburgum	Franconiae	0 0 56, or.	50 15 19	— 0 9, 5
Conimbrica	Lusitaniae	1 16 33, oc.	40 12 30	+ 13 3, 2
Constantinopolis	Turciae	1 12 45, or.	41 1 27	— 12 24, 4
Cracovia	Poloniae	0 36 48, or.	50 3 54	— 6 16, 5
Cremifanum	Aust. sup.	0 13 36, or.	48 3 29	— 2 19, 1
Dillinga	Sueviae	0 0 55, oc.	48 34 33	+ 0 9, 4
Dorpatum	Liboniae	1 3 52, or.	58 22 47	— 10 53, 5
Dresda	Saxoniae	0 11 54, or.	51 3 9	— 2 1, 7
Dublinum	Hiberniae	1 8 21, oc.	53 21 11	+ 11 39, 3
Florentia	Italiae	0 2 7, or.	43 46 41	— 0 21, 7
Gades	Hispaniae	1 8 6, oc.	36 32 1	+ 11 36, 7
Gedanum	Borussiae	0 31 36, or.	54 20 48	— 5 23, 3
Geneva	Helvetiae	0 18 21, oc.	46 12 0	+ 3 7, 7
Gotha, *Observ. Seeberg.*	Thuring.	0 0 0, —	50 56 7	0 0, 0
Gottinga	Westphal.	0 3 14, oc.	51 31 54	+ 0 33, 1
Genua	Italiae	0 7 4, oc.	44 24 59	+ 1 12, 3
Grenovicum	Angliae	0 42 56, oc.	51 28 39	+ 7 19, 2
Halla	Westphal.	0 4 56, or.	51 30 34	— 0 50, 4
Hamburgum	Saxon. infer.	0 3 4, oc.	53 34 32	+ 0 31, 4
Havnia	Daniae	0 7 22, or.	55 41 4	— 1 15, 3
Holmia	Sueciae	0 29 17, or.	59 20 31	— 4 59, 6
Isenberga	Saxoniae	0 4 50, or.	50 57 58	— 0 49, 4
Lilienthalium	Saxon. infer.	0 7 16, oc.	53 8 25	+ 1 14, 3
Lipsia	Saxoniae	0 6 24, or.	51 20 44	— 1 5, 5

TABULA I.

Specularum astronomicarum differentia a Meridiano SEEBERGENSI in tempore, et latitudo geographica, cum reductione Epocharum medii motus Mercurii.

Nomina Specularum		Differ. Merid. in tempore	Latitudo	Reductio Epoch. motus med. ☿
		h ′ ″	° ′ ″	′ ″
Londinum, *S. Paul's*	Angliae	0 43 18, oc.	51 30 49	+ 7 23, 0
Londinum, *Marlb. House* Cels.	Ducis	0 43 27, oc.	51 30 30	+ 7 24, 5
Lugdunum	Bataviae	0 24 59, oc.	52 9 30	+ 4 15, 5
Lutetia Parisiorum, *O. J.*	Galliae	0 33 35, oc.	48 50 14	+ 5 43, 6
Madritum	Hispaniae	0 57 43, oc.	40 25 18	+ 9 50, 5
Manhemium	Palatin	0 9 3, oc.	49 29 18	+ 1 32, 6
Massilia, *Obs. J.*	Galliae	0 21 27, oc.	43 17 50	+ 3 39, 4
Mediolanum, *Brera*	Italiae	0 6 11, oc.	45 28 2	+ 1 3, 3
Mirapicum	Galliae	0 35 25, oc.	43 5 19	+ 6 2, 4
Mittavia	Curland.	0 51 58, or.	56 39 6	— 8 51, 7
Mons Pessulanus	Galliae	0 27 25, oc.	43 36 29	+ 4 40, 5
Montalbanum	Galliae	0 37 32, oc.	44 0 50	+ 6 23, 9
Monachium	Bavariae	0 3 24, or.	48 8 20	— 0 34, 8
Moscua, *Obs. J.*	Moscoviae	1 47 16, or.	55 45 45	— 18 17, 4
Neapolis, *Obs.*	Italiae	0 14 9, or.	40 50 15	— 2 24, 7
Oxonium	Angliae	0 47 56, oc.	51 45 40	+ 8 10, 3
Olbiae	Galliae	0 18 25, oc.	43 7 2	+ 3 8, 4
Panormum	Siciliae	0 10 31, or.	38 6 44	— 1 47, 6
Patavium	Italiae	0 4 35, or.	45 24 2	— 0 46, 9
Petropolis	Russiae	1 18 17, or.	59 56 23	— 13 20, 9
Philadelphia	Americ.	5 43 42, oc.	39 56 55	+ 58 36, 4
Pillnitz	Saxoniae	0 12 33, or.	51 0 50	— 2 8, 4
Pisa	Italiae	0 1 30, oc.	43 43 11	+ 0 15, 3
Portsmuth	Angliae	0 47 21, oc.	50 48 3	+ 8 4, 4
Praga	Bohemiae	0 14 45, or.	50 5 19	— 2 30, 9
Ratisbona	Bavariae	0 5 25, or.	49 0 58	— 0 55, 4
Roma, *Colleg. Rom.*	Italiae	0 7 1, or.	41 54 1	— 1 11, 8
Slough	Angliae	0 45 20, oc.	51 30 20	+ 7 43, 8
Taurinium, *Piazza castello*	Italiae	0 12 15, oc.	45 4 14	+ 2 5, 3
Tolosa	Galliae	0 37 10, oc.	43 35 46	+ 6 20, 2
Tornea	Lapponiae	0 53 41, or.	65 50 51	— 9 9, 2
Tubinga	Sueviae	0 6 41, oc.	48 31 10	+ 1 8, 4
Ultrajectum	Batavia	0 22 27, oc.	52 5 14	+ 3 49, 7
Ulyssipo	Lusitaniae	1 19 30, oc.	38 42 50	+ 13 33, 4
Upsalia	Sueciae	0 27 37, or.	59 51 50	— 4 42, 5
Vienna, *Obs. Univ.*	Austriae	0 22 35, or.	48 12 36	— 3 51, 1
Verona	Italiae	0 1 5, or.	45 26 6	— 0 11, 0
Venetiae, *S. Marco*	Italiae	0 6 28, or.	45 25 54	— 1 6, 2
Vilna	Lithuaniae	0 58 14, or.	54 41 2	— 9 55, 8
Vivarium	Galliae	0 24 2, oc.	44 29 19	+ 4 5, 8
Vratislaviae	Silesiae	0 25 15, or.	51 6 30	— 4 18, 3

TABULA II.

Epochae mediorum motuum Mercurii tempore medio currente sub Meridiano Observatorii SEEBERGENSIS.

Anni	Long. med. ☿	Aphelium	Nodus	Arg II	Arg III	Arg IV	Arg V	Arg VI	Arg VII	Arg VIII	Arg IX	Arg X	Arg XI
1750	8ˢ 13° 5′ 17,″1	8ˢ 13° 33′ 24″	1ˢ 15° 22′ 1″	83	62	180	2	43	63	39	345	1565	1409
1751	10 6 48 20, 7	8 13 34 20	1 15 22 43	15	68	141	48	412	61	66	205	1940	1774
1752B	0 4 36 56, 9	8 13 35 16	1 15 23 25	91	75	101	94	778	60	11	68	239	2139
1753	1 28 20 0, 5	8 13 36 12	1 15 24 7	23	81	61	33	1140	58	39	431	604	104
1754	3 22 3 4,1	8 13 37 8	1 15 24 50	98	87	20	78	1508	56	66	293	969	469
1755	5 15 46 7, 7	8 13 38 4	1 15 25 32	30	3	386	17	1873	55	9	154	1335	834
1756B	7 13 34 43, 9	8 13 39 0	1 15 26 14	107	9	345	63	2239	54	37	15	1701	1199
1757	9 7 17 47, 5	8 13 39 56	1 15 26 56	38	15	305	1	2605	52	64	382	2065	1564
1758	11 1 0 51, 1	8 13 40 53	1 15 27 38	114	21	265	47	2969	50	8	241	360	1929
1759	0 24 43 54, 7	8 13 41 49	1 15 28 20	45	27	225	92	3333	49	35	101	722	2294
1760B	2 22 32 30, 9	8 13 42 45	1 15 29 2	122	34	185	32	3703	48	64	469	1086	260
1761	4 16 15 34, 5	8 13 43 41	1 15 29 45	53	40	145	77	4066	46	7	330	1450	625
1762	6 9 58 38, 1	8 13 44 37	1 15 30 27	129	45	104	16	96	44	35	189	1813	990
1763	8 3 41 41, 7	8 13 45 33	1 15 31 9	60	51	64	61	464	42	62	52	117	1355
1764B	10 1 30 17, 9	8 13 46 29	1 15 31 51	137	58	25	1	830	41	6	416	481	1720
1765	11 25 13 21, 5	8 13 47 25	1 15 32 33	69	64	389	47	1192	40	33	279	845	2085
1766	1 18 56 25, 1	8 13 48 21	1 15 33 15	144	70	349	92	1560	38	61	138	1208	50
1767	3 12 39 28, 7	8 13 49 17	1 15 33 58	76	75	309	30	1925	36	4	0	1571	415
1768B	5 10 28 4, 9	8 13 50 13	1 15 34 40	8	82	270	77	2292	35	33	365	1934	780
1769	7 4 11 8, 5	8 13 51 9	1 15 35 22	84	88	229	16	2657	34	60	227	238	1145
1770	8 27 54 12, 1	8 13 52 5	1 15 36 4	15	4	189	61	3021	32	3	87	602	1510
1771	10 21 37 15, 7	8 13 53 1	1 15 36 46	91	10	148	106	3385	30	31	452	965	1876
1772B	0 19 25 51, 9	8 13 53 57	1 15 37 28	23	17	109	46	3755	29	59	315	1328	2241
1773	2 13 8 55, 5	8 13 54 53	1 15 38 10	99	23	69	91	4119	28	2	175	1691	206
1774	4 6 51 59, 1	8 13 55 49	1 15 38 53	30	29	28	30	152	26	29	379	2054	571
1775	6 0 35 2, 7	8 13 56 45	1 15 39 35	106	34	393	75	516	24	57	145	357	936
1776B	7 28 23 38, 9	8 13 57 41	1 15 40 17	39	41	354	15	883	23	2	261	721	1301
1777	9 22 6 42, 5	8 13 58 37	1 15 40 59	115	47	314	61	1248	22	29	124	1084	1666
1778	11 15 49 46, 1	8 13 59 33	1 15 41 41	46	53	273	106	1612	20	56	489	1447	2031
1779	1 9 32 49, 7	8 14 0 29	1 15 42 23	122	59	233	45	1976	18	84	350	1810	2396
1780B	3 7 21 25, 9	8 14 1 25	1 15 43 5	54	66	193	91	2345	17	28	336	113	361
1781	5 1 4 29, 5	8 14 2 21	1 15 43 48	130	71	153	30	2709	16	55	72	476	726
1782	6 24 47 33, 1	8 14 3 17	1 15 44 30	61	77	113	75	3073	14	82	439	839	1090
1783	8 18 30 36, 7	8 14 4 13	1 15 45 12	137	83	72	13	3442	12	26	299	1203	1455
1784B	10 16 19 12, 9	8 14 5 9	1 15 45 54	69	0	33	60	3810	11	54	161	1566	1820
1785	0 10 2 16, 5	8 14 6 5	1 15 46 36	1	6	398	105	4172	9	81	23	1929	2185
1786	2 3 45 20, 1	8 14 7 1	1 15 47 18	77	12	357	44	204	8	24	387	232	150
1787	3 27 28 23, 7	8 14 7 57	1 15 48 1	8	18	317	89	568	6	52	246	595	515

TABULA II.

Epochae mediorum motuum Mercurii tempore medio currente sub Meridiano Observatorii SEEBERGENSIS.

Anni	Long. med. ☿	Aphelium	Nodus	Arg. II	Arg. III	Arg. IV	Arg V	Arg. VI	Arg VII	Arg. VIII	Arg IX	Arg. X	Arg. XI
1788B	5ˢ 25° 16′ 59,″9	8ˢ 14° 8′ 53″	1ˢ 15° 48′ 43″	85	24	278	29	936	5	81	109	958	880
1789	7 19 0 3, 5	8 14 9 49	1 15 49 25	16	30	237	74	1301	3	23	475	1322	1245
1790	9 12 43 7, 1	8 14 10 45	1 15 50 7	92	36	197	13	1665	2	51	335	1685	1610
1791	11 6 26 10, 7	8 14 11 41	1 15 50 49	24	42	158	59	2029	0	79	192	2048	1975
1792B	1 4 14 46, 9	8 14 12 38	1 15 51 31	101	49	117	105	2397	91	23	57	351	2340
1793	2 27 57 50, 5	8 14 13 34	1 15 52 13	31	55	77	43	2761	89	50	423	715	305
1794	4 21 40 54, 1	8 14 14 30	1 15 52 56	108	60	37	89	3126	88	78	284	1078	669
1795	6 15 23 57, 7	8 14 15 26	1 15 53 38	38	66	402	27	3494	87	21	145	1443	1034
1796B	8 13 12 33, 9	8 14 16 22	1 15 54 20	116	73	363	74	3860	85	49	5	1806	1399
1797	10 6 55 37, 5	8 14 17 18	1 15 55 2	47	79	322	12	4224	83	77	371	110	1764
1798	0 0 38 41, 1	8 14 18 14	1 15 55 44	123	85	282	58	256	81	20	231	473	2129
1799	1 24 21 44, 7	8 14 19 10	1 15 56 26	54	1	241	103	620	79	47	94	837	94
1800C	3 18 4 48, 3	8 14 20 6	1 15 57 9	130	7	201	42	984	78	75	458	1200	459
1801	5 11 47 52, 0	8 14 21 2	1 15 57 51	61	12	160	87	1353	76	18	320	1565	824
1802	7 5 30 55, 6	8 14 21 58	1 15 58 33	137	18	119	26	1717	74	45	180	1982	1189
1803	8 29 13 59, 2	8 14 22 54	1 15 59 15	68	24	80	71	2081	72	73	40	231	1554
1804B	10 27 2 35, 4	8 14 23 50	1 15 59 57	1	31	40	11	2449	71	17	407	595	1919
1805	0 20 45 39, 0	8 14 24 46	1 16 0 39	76	37	405	56	2813	70	44	268	959	2283
1806	2 14 28 42, 6	8 14 25 42	1 16 1 21	8	43	365	102	3177	68	72	128	1323	247
1807	4 8 11 46, 2	8 14 26 38	1 16 2 4	83	48	324	40	3546	66	15	494	1687	611
1808B	6 6 0 22, 4	8 14 27 34	1 16 2 46	16	55	285	86	3910	65	43	355	2050	975
1809	7 29 43 26, 0	8 14 28 30	1 16 3 28	92	61	244	26	4274	64	70	217	354	1340
1810	9 23 26 29, 6	8 14 29 26	1 16 4 10	23	67	204	71	308	62	14	77	717	1705
1811	11 17 9 33, 2	8 14 30 22	1 16 4 52	99	73	164	9	672	60	41	443	1081	2070
1812B	1 14 58 9, 4	8 14 31 18	1 16 5 34	31	80	125	56	1039	59	70	305	1446	35
1813	3 8 41 13, 0	8 14 32 14	1 16 6 16	107	85	84	101	1404	57	13	166	1809	400
1814	5 2 24 16, 6	8 14 33 10	1 16 6 59	38	1	44	40	1769	56	41	26	112	765
1815	6 26 7 20, 2	8 14 34 6	1 16 7 41	114	7	3	85	2133	54	68	391	475	1130
1816B	8 23 55 56, 4	8 14 35 2	1 16 8 23	46	14	368	25	2501	53	12	352	838	1495
1817	10 17 39 0, 0	8 14 35 58	1 16 9 5	122	20	328	70	2865	51	40	114	1202	1859
1818	0 11 22 3, 6	8 14 36 54	1 16 9 47	54	26	288	9	3229	50	67	479	1566	2223
1819	2 5 5 7, 2	8 14 37 50	1 16 10 29	130	31	248	54	3596	48	10	340	1933	188
1820B	4 2 53 43, 4	8 14 38 46	1 16 11 12	62	38	209	101	3963	47	39	201	236	552
1821	5 26 36 47, 0	8 14 39 42	1 16 11 54	138	44	168	39	4326	45	66	62	588	916
1822	7 20 19 50, 6	8 14 40 38	1 16 12 36	69	50	127	84	360	44	9	428	953	1281
1823	9 14 2 54, 2	8 14 41 34	1 16 13 18	0	56	87	24	724	42	37	289	1316	1646
1824B	11 11 51 30, 4	8 14 42 30	1 16 14 0	77	63	47	70	1092	41	65	150	1671	2011
1825	1 5 34 34, 0	8 14 43 26	1 16 14 42	8	69	7	8	1457	39	8	12	2044	2375

TABULA II.

Epochae mediorum motuum Mercurii tempore medio currente sub Meridiano Observatorii SEEBERGENSIS.

Anni	Long. med. ☿	Aphelium	Nodus	Arg II	Arg. III	Arg IV	Arg V	Arg. VI	Arg VII	Arg VIII	Arg. IX	Arg. X	Arg. XI
1826	2^s 29° 17′ 37,″6	8^s 14° 44′ 22″	1^s 16° 15′ 24″	84	74	372	53	1821	37	35	377	347	340
1827	4 23 0 41, 2	8 14 45 19	1 16 16 7	16	80	333	99	2187	36	63	237	712	704
1828B	6 20 49 17, 4	8 14 46 15	1 16 16 49	93	87	293	39	2554	35	7	99	1075	1070
1829	8 14 32 21, 0	8 14 47 11	1 16 17 31	24	3	252	84	2918	33	34	465	1439	1434
1830	10 8 15 24, 6	8 14 48 7	1 16 18 13	100	9	212	23	3285	31	62	326	1803	1799
1831	0 1 58 28, 2	8 14 49 3	1 16 18 55	31	15	172	68	3650	30	5	185	106	2163
1832B	1 29 47 4, 4	8 14 49 59	1 16 19 37	108	22	132	8	4016	29	34	47	469	129
1833	3 23 30 8, 0	8 14 50 55	1 16 20 19	39	27	91	53	47	27	61	414	825	493
1834	5 17 13 11, 6	8 14 51 51	1 16 21 2	115	33	51	98	412	25	4	273	1196	858
1835	7 10 56 15, 2	8 14 52 47	1 16 21 44	46	39	11	37	776	23	31	135	1559	1223
1836B	9 8 44 51, 4	8 14 53 43	1 16 22 26	124	46	377	83	1144	22	60	499	1925	1588
1837	11 2 27 55, 0	8 14 54 39	1 16 23 8	54	52	336	22	1508	21	3	362	228	1952
1838	0 26 10 58, 6	8 14 55 35	1 16 23 50	131	58	296	67	1873	19	31	221	592	2317
1839	2 19 54 2, 2	8 14 56 31	1 16 24 32	62	63	255	6	2241	17	58	84	955	281
1840B	4 17 42 38, 4	8 14 57 27	1 16 25 15	139	70	217	53	2608	16	3	448	1320	647
1841	6 11 25 42, 0	8 14 58 23	1 16 25 57	70	76	176	98	2972	15	30	310	1682	1011
1842	8 5 8 45, 6	8 14 59 19	1 16 26 39	1	82	135	36	3238	13	57	172	2047	1376
1843	9 28 51 49, 2	8 15 0 15	1 16 27 21	77	88	95	82	3702	11	0	323	351	1740
1844B	11 26 40 25, 4	8 15 1 11	1 16 28 3	9	5	56	22	4068	10	29	397	717	2106
1845	1 20 23 29, 0	8 15 2 7	1 16 28 45	85	11	15	67	99	9	56	259	1083	70
1846	3 14 6 32, 6	8 15 3 3	1 16 29 27	16	17	380	6	464	7	84	119	1450	125
1847	5 7 49 36, 2	8 15 3 59	1 16 30 10	92	22	340	51	828	5	27	485	1816	799
1848B	7 5 38 12, 4	8 15 4 55	1 16 30 52	25	29	300	97	1196	4	55	347	113	1164
1849	8 29 21 16, 0	8 15 5 51	1 16 31 34	101	35	260	36	1561	2	83	207	478	1528
1850	10 23 4 19, 6	8 15 6 47	1 16 32 16	32	41	220	81	1925	1	26	69	844	1894
1851	0 16 47 23, 2	8 15 7 43	1 16 32 58	108	46	180	20	2291	91	53	433	1209	2259
1852B	2 14 35 59, 4	8 15 8 39	1 16 33 40	40	53	140	66	2657	90	82	295	1575	224
1853	4 8 19 3, 0	8 15 9 35	1 16 34 23	116	59	100	6	3023	88	25	156	1940	588
1854	6 2 2 6, 6	8 15 10 31	1 16 35 5	47	65	59	50	3388	86	52	17	235	953
1855	7 25 45 10, 2	8 15 11 27	1 16 35 47	123	71	19	96	3753	85	80	382	600	1317
1856B	9 23 33 46, 4	8 15 12 23	1 16 36 29	55	78	385	35	4120	84	24	244	966	1683
1857	11 17 16 50, 0	8 15 13 19	1 16 37 11	131	83	345	81	150	82	51	105	1331	2047
1858	1 10 59 53, 6	8 15 14 15	1 16 37 53	63	89	304	19	516	80	79	469	1696	12
1859	3 4 42 57, 2	8 15 15 11	1 16 38 35	139	5	264	65	881	78	22	330	2061	376
1860B	5 2 31 33, 4	8 15 16 7	1 16 39 18	71	12	224	4	1247	77	50	192	357	742
1861	6 26 14 37, 0	8 15 17 4	1 16 40 0	2	18	184	50	1613	76	77	53	722	1106
1862	8 19 57 40, 6	8 15 18 0	1 16 40 42	78	24	144	95	1978	74	21	418	1087	1471
1863	10 13 40 44, 2	8 15 18 56	1 16 41 24	9	30	103	34	2343	72	48	279	1452	1835

TABULA II.

Epochae mediorum motuum Mercurii tempore medio currente sub Meridiano Observatorii SEEBERGENSIS.

Anni	Long. med. ☿	Aphelium	Nodus	Arg II	Arg. III	Arg. IV	Arg V	Arg. VI	Arg. VII	Arg. VIII	Arg. IX	Arg. X	Arg. XI
1864B	0s 11° 29′ 20,″4	8s 15° 19′ 52″	1s 16° 42′ 6″	86	37	64	80	2710	71	77	141	1818	2201
1865	2 5 12 24, 0	8 15 20 48	1 16 42 48	17	42	24	19	3075	70	20	2	113	165
1866	3 28 55 27, 6	8 15 21 44	1 16 43 30	93	48	389	64	3440	68	47	367	478	530
1867	5 22 38 31, 2	8 15 22 40	1 16 44 13	24	54	348	3	3806	66	75	228	843	894
1868B	7 20 27 7, 4	8 15 23 36	1 16 44 55	101	61	309	49	4172	65	19	90	1209	1260
1869	9 14 10 11, 0	8 15 24 32	1 16 45 37	33	67	268	95	203	64	46	454	1574	1624
1870	11 7 53 14, 6	8 15 25 28	1 16 46 19	109	73	228	33	568	62	74	315	1939	1989
1871	1 1 36 18, 2	8 15 26 24	1 16 47 1	40	78	188	79	934	60	17	177	234	2353
1872B	2 29 24 54, 4	8 15 27 20	1 16 47 43	117	85	148	18	1300	59	46	38	599	319
1873	4 23 7 58, 0	8 15 28 16	1 16 48 26	48	1	108	64	1665	58	73	403	965	683
1874	6 16 51 1, 6	8 15 29 12	1 16 49 8	124	7	67	2	2031	56	16	264	1330	1048
1875	8 10 34 5, 2	8 15 30 8	1 16 49 50	55	13	27	48	2396	54	43	125	1695	1412
1876B	10 8 22 41, 4	8 15 31 4	1 16 50 32	132	20	393	94	2762	53	72	491	2061	1778
1877	0 2 5 45, 0	8 15 32 0	1 16 51 14	63	26	353	33	3127	52	15	352	356	2142
1878	1 25 48 48, 6	8 15 32 56	1 16 51 56	139	31	312	78	3493	50	42	213	720	107
1879	3 19 31 52, 2	8 15 33 52	1 16 52 38	70	37	272	17	3858	48	70	74	1086	471
1880B	5 17 20 28, 4	8 15 34 48	1 16 53 21	2	44	232	63	4225	47	14	440	1452	837
1881	7 11 3 32, 0	8 15 35 44	1 16 54 3	79	50	192	2	255	46	41	300	1817	1201
1882	9 4 46 35, 6	8 15 36 40	1 16 54 45	10	56	152	47	620	44	69	162	112	1566
1883	10 28 29 39, 2	8 15 37 36	1 16 55 27	86	62	111	93	986	42	12	22	477	1930
1884B	0 26 18 15, 4	8 15 38 32	1 16 56 9	18	68	72	32	1352	41	41	388	843	2296
1885	2 20 1 19, 0	8 15 39 28	1 16 56 51	94	74	32	78	1717	39	68	249	1208	260
1886	4 13 44 22, 6	8 15 40 24	1 16 57 33	25	80	397	16	2083	38	11	110	1573	625
1887	6 7 27 26, 2	8 15 41 20	1 16 58 16	101	86	356	62	2448	36	39	475	1938	989
1888B	8 5 16 2, 4	8 15 42 16	1 16 58 58	33	3	317	1	2815	35	67	337	234	1355
1889	9 28 59 6, 0	8 15 43 12	1 16 59 40	109	9	276	47	3180	33	10	198	599	1719
1890	11 22 42 9, 6	8 15 44 8	1 17 0 22	41	15	236	92	3545	32	38	59	964	2083
1891	1 16 25 13, 2	8 15 45 4	1 17 1 4	117	20	195	31	3911	30	65	424	1329	48
1892B	3 14 13 49, 4	8 15 46 0	1 17 1 46	49	27	156	77	4277	29	9	286	1695	413
1893	5 7 56 53, 0	8 15 46 56	1 17 2 29	125	33	116	16	308	27	37	147	2060	778
1894	7 1 39 56, 6	8 15 47 52	1 17 3 11	56	39	75	61	673	25	64	7	355	1142
1895	8 25 23 0, 2	8 15 48 48	1 17 3 53	132	45	35	107	1038	24	7	273	720	1507
1896B	10 23 11 36, 4	8 15 49 44	1 17 4 35	64	52	401	46	1405	23	36	234	1086	1872
1897	0 16 54 40, 0	8 15 50 41	1 17 5 17	140	57	361	91	1770	21	63	95	1451	2237
1898	2 10 37 43, 6	8 15 51 37	1 17 5 59	71	63	320	30	2135	19	6	460	1861	201
1899	4 4 20 47, 2	8 15 52 33	1 17 6 41	2	69	280	75	2501	18	34	321	110	566
1900C	5 28 3 50, 8	8 15 53 29	1 17 7 24	78	75	240	14	2866	16	61	182	476	930

TABULA III.

Motus Medius Mercurii saecularis, pro reductione Epocharum ad tempus datum.

Anni	Long. med. ☿	Aphelium	Nodus	Arg. II	Arg. III	Arg. IV	Arg. V	Arg VI	Arg. VII	Arg VIII	Arg. IX	Arg. X	Arg. XI
	s ° ′ ″	s ° ′ ″	s ° ′ ″										
— 1500	0 17 57 36,6	11 6 39 16,5	11 12 26 13,5	43	50	220	90	2127	6	33	105	697	110
— 1400	3 2 2 12,2	11 8 12 39,4	11 13 36 28,6	137	30	261	64	4008	37	20	334	203	583
— 1300	5 16 6 47,8	11 9 46 2,3	11 14 46 43,7	87	9	301	37	1556	68	7	59	1295	1056
— 1200	8 0 11 23,4	11 11 19 25,2	11 15 56 58,8	37	79	341	10	3438	7	79	289	555	1530
— 1100	10 14 15 59,0	11 12 52 48,1	11 17 7 13,9	131	58	381	90	985	38	66	130	1894	2004
— 1000	0 28 20 34,6	11 14 26 11,0	11 18 17 29,0	81	38	16	69	2867	69	54	242	1158	88
— 900	3 12 25 10,2	11 15 59 33,9	11 19 27 44,1	31	17	56	38	414	9	41	448	422	551
— 800	5 26 29 45,8	11 17 32 56,8	11 20 37 59,2	58	86	96	11	2296	39	29	196	1757	1024
— 700	8 10 34 21,4	11 19 6 19,7	11 21 48 14,3	74	65	134	90	4178	70	15	428	999	1484
— 600	10 24 38 57,0	11 20 39 42,6	11 22 58 29,4	24	45	176	64	1725	10	3	150	286	1971
— 500	1 8 43 32,6	11 22 13 5,5	11 24 8 44,4	119	25	217	38	3605	41	76	379	1649	44
— 400	3 22 48 8,1	11 23 46 28,4	11 25 18 59,6	69	4	257	11	1154	71	23	104	884	518
— 300J	6 6 52 43,8	11 25 19 51,3	11 26 29 14,7	18	73	295	91	3036	10	48	336	130	981
— 300G	4 25 57 18,3	11 25 19 49,6	11 26 29 13,6	8	64	287	82	3026	1	82	323	139	982
— 200	7 10 1 53,9	11 26 53 12,6	11 27 39 28,6	103	43	327	55	573	32	27	48	1474	1455
— 100	9 20 0 57,0	11 28 26 35,5	11 28 49 43,7	51	22	366	28	2454	62	14	276	737	1928
+ 100	2 9 59 3,1	0 1 33 22,9	0 1 10 15,1	93	68	39	79	1882	30	71	228	1334	473
+ 200	4 24 3 38,5	0 3 6 45,8	0 2 20 30,2	43	48	79	53	3763	61	58	457	598	946
+ 300	7 4 2 41,5	0 4 40 8,7	0 3 30 45,2	136	27	118	25	1309	91	45	181	1931	1418
+ 400	9 14 1 44,5	0 6 13 31,6	0 4 41 0,4	85	5	158	104	3190	29	31	409	1194	1891
+ 500	11 24 0 47,5	0 7 46 54,5	0 5 51 15,5	34	73	197	77	736	59	17	133	458	2364
+ 600	2 8 5 23,0	0 9 20 17,4	0 7 1 30,6	128	53	237	50	2618	90	5	362	1792	437
+ 700	4 18 4 26,1	0 10 53 40,3	0 8 11 45,7	77	31	276	23	164	28	75	86	1056	909
+ 800	6 28 3 29,1	0 12 27 3,2	0 9 22 0,8	26	9	315	102	2045	58	59	314	261	1382
+ 900	9 8 2 32,1	0 14 0 26,1	0 10 32 15,9	119	78	354	74	3926	88	48	38	1652	1854
+ 1000	11 22 7 7,7	0 15 33 49,0	0 11 42 31,0	69	16	394	48	1473	27	35	267	913	2328
+ 1100	2 2 6 10,7	0 17 7 11,9	0 12 52 46,1	17	36	28	21	3354	57	22	495	180	401
+ 1200	4 12 5 13,7	0 18 40 34,8	0 14 3 1,2	111	14	67	99	900	87	8	219	1513	868
+ 1300	6 22 4 16,7	0 20 13 57,7	0 15 13 16,3	60	82	106	72	2781	26	79	447	777	1345
+ 1400	9 6 8 52,2	0 21 47 20,6	0 16 23 31,4	9	62	146	45	328	56	66	173	404	1819
+ 1500	11 16 7 55,2	0 23 20 43,5	0 17 33 46,5	103	41	185	18	2209	86	53	400	1374	2291

TABULA IV.

Mediorum motuum Mercurii pro diebus mensium.

JANUARIUS.						FEBRUARIUS.						MARTIUS.				
Anni bissex.	Anni com.	Dies anni	Long. med. ☿	Aphelium	Nodus	Anni bissex.	Anni com.	Dies anni	Long. med. ☿	Aphelium	Nodus	Dies mens.	Dies anni	Long. med. ☿	Aphelium	Nodus
1	0		0ˢ 0° 0′ 0,″0	0″	0″	1	0		4ˢ 6° 51′ 49,″3	5″	4″	1	60	8ˢ 5° 32′ 33,″5	9″	7″
2	1	1	0 4 5 32, 5	0	0	2	1	32	4 10 57 21, 9	5	4	2	61	8 9 38 6, 0	9	7
3	2	2	0 8 11 5, 1	0	0	3	2	33	4 15 2 54, 4	5	4	3	62	8 13 43 38, 6	10	7
4	3	3	0 12 16 37, 7	1	0	4	3	34	4 19 8 27, 0	5	4	4	63	8 17 49 11, 1	10	7
5	4	4	0 16 22 10, 2	1	0	5	4	35	4 23 13 59, 5	6	4	5	64	8 21 54 43, 7	10	7
6	5	5	0 20 27 42, 8	1	1	6	5	36	4 27 19 32, 1	6	4	6	65	8 26 0 16, 3	10	8
7	6	6	0 24 33 15, 3	1	1	7	6	37	5 1 25 4, 7	6	4	7	66	9 0 5 48, 8	10	8
8	7	7	0 28 38 47, 9	1	1	8	7	38	5 5 30 37, 2	6	4	8	67	9 4 11 21, 4	10	8
9	8	8	1 2 44 20, 5	1	1	9	8	39	5 9 36 9, 8	6	5	9	68	9 8 16 53, 9	10	8
10	9	9	1 6 49 53, 0	2	1	10	9	40	5 13 41 42, 3	6	5	10	69	9 12 22 26, 5	11	8
11	10	10	1 10 55 25, 6	2	1	11	10	41	5 17 47 14, 9	6	5	11	70	9 16 27 59, 0	11	8
12	11	11	1 15 0 58, 1	2	1	12	11	42	5 21 52 47, 4	6	5	12	71	9 20 33 31, 6	11	8
13	12	12	1 19 6 30, 7	2	1	13	12	43	5 25 58 20, 0	7	5	13	72	9 24 39 4, 2	11	8
14	13	13	1 23 12 3, 3	2	2	14	13	44	6 0 3 52, 5	7	5	14	73	9 28 44 36, 7	11	8
15	14	14	1 27 17 35, 8	2	2	15	14	45	6 4 9 25, 1	7	5	15	74	10 2 50 9, 3	11	9
16	15	15	2 1 23 8, 4	2	2	16	15	46	6 8 14 57, 7	7	5	16	75	10 6 55 41, 8	12	9
17	16	16	2 5 28 40, 9	3	2	17	16	47	6 12 20 30, 2	7	5	17	76	10 11 1 14, 4	12	9
18	17	17	2 9 34 13, 5	3	2	18	17	48	6 16 26 2, 8	7	6	18	77	10 15 6 47, 0	12	9
19	18	18	2 13 39 46, 0	3	2	19	18	49	6 20 31 35, 3	8	6	19	78	10 19 12 19, 5	12	9
20	19	19	2 17 45 18, 6	3	2	20	19	50	6 24 37 7, 9	8	6	20	79	10 23 17 52, 1	12	9
21	20	20	2 21 50 51, 2	3	2	21	20	51	6 28 42 40, 4	8	6	21	80	10 27 23 24, 6	12	9
22	21	21	2 25 56 23, 7	3	2	22	21	52	7 2 48 13, 0	8	6	22	81	11 1 28 57, 2	12	9
23	22	22	3 0 1 56, 3	4	3	23	22	53	7 6 53 45, 6	8	6	23	82	11 5 34 29, 7	13	9
24	23	23	3 4 7 28, 8	4	3	24	23	54	7 10 59 18, 1	8	6	24	83	11 9 40 2, 3	13	10
25	24	24	3 8 13 1, 4	4	3	25	24	55	7 15 4 50, 7	8	6	25	84	11 13 45 34, 9	13	10
26	25	25	3 12 18 33, 9	4	3	26	25	56	7 19 10 23, 2	9	6	26	85	11 17 51 7, 4	13	10
27	26	26	3 16 24 6, 5	4	3	27	26	57	7 23 15 55, 8	9	7	27	86	11 21 56 40, 0	13	10
28	27	27	3 20 29 39, 1	4	3	28	27	58	7 27 21 28, 4	9	7	28	87	11 26 2 12, 5	13	10
29	28	28	3 24 35 11, 6	4	3	29	28	59	8 1 27 0, 9	9	7	29	88	0 0 7 45, 1	14	10
30	29	29	3 28 40 44, 2	4	3							30	89	0 4 13 17, 6	14	10
31	30	30	4 2 46 16, 7	5	3							31	90	0 8 18 50, 2	14	10
	31	31	4 6 51 49, 3	5	4											

TABULA IV.

Mediorum motuum Mercurii pro diebus mensium.

APRILIS.					MAJUS.					JUNIUS.				
Dies mens.	Dies anni	Long. med. ☿	Aphelium	Nodus	Dies mens.	Dies anni	Long. med. ☿	Aphelium	Nodus	Dies mens.	Dies anni	Long. med. ☿	Aphelium	Nodus
1	91	0ˢ 12° 24′ 22,″8	14″	11′	1	121	4ˢ 15° 10′ 39,″5	19″	14′	1	152	8ˢ 22° 2′ 28,″8	23″	18″
2	92	0 16 29 55, 3	14	11	2	122	4 19 16 12, 1	19	14	2	153	8 26 8 1, 3	24	18
3	93	0 20 35 27, 9	14	11	3	123	4 23 21 44, 6	19	14	3	154	9 0 13 33, 9	24	18
4	94	0 24 41 0, 4	14	11	4	124	4 27 27 17, 2	19	14	4	155	9 4 19 6, 5	24	18
5	95	0 28 46 33, 0	15	11	5	125	5 1 32 49, 7	19	14	5	156	9 8 24 39, 0	24	18
6	96	1 2 52 5, 5	15	11	6	126	5 5 38 22, 3	19	15	6	157	9 12 30 11, 6	24	18
7	97	1 6 57 38, 1	15	11	7	127	5 9 43 54, 8	20	15	7	158	9 16 35 44, 1	24	18
8	98	1 11 3 10, 7	15	11	8	128	5 13 49 27, 4	20	15	8	159	9 20 41 16, 7	25	18
9	99	1 15 8 43, 2	15	11	9	129	5 17 55 0, 0	20	15	9	160	9 24 46 49, 2	25	18
10	100	1 19 14 15, 8	15	12	10	130	5 22 0 32, 5	20	15	10	161	9 28 52 21, 8	25	19
11	101	1 23 19 48, 3	16	12	11	131	5 26 6 5, 1	20	15	11	162	10 2 57 54, 4	25	19
12	102	1 27 25 20, 9	16	12	12	132	6 0 11 37, 6	20	15	12	163	10 7 3 26, 9	25	19
13	103	2 1 30 53, 5	16	12	13	133	6 4 17 10, 2	20	15	13	164	10 11 8 59, 5	25	19
14	104	2 5 36 26, 0	16	12	14	134	6 8 22 42, 7	21	15	14	165	10 15 14 32, 0	25	19
15	105	2 9 41 58, 6	16	12	15	135	6 12 28 15, 3	21	16	15	166	10 19 20 4, 6	26	19
16	106	2 13 47 31, 1	16	12	16	136	6 16 33 47, 9	21	16	16	167	10 23 25 37, 2	26	19
17	107	2 17 53 3, 7	16	12	17	137	6 20 39 20, 4	21	16	17	168	10 27 31 9, 7	26	19
18	108	2 21 58 36, 2	17	12	18	138	6 24 44 53, 0	21	16	18	169	11 1 36 42, 3	26	20
19	109	2 26 4 8, 8	17	13	19	139	6 28 50 25, 4	21	16	19	170	11 5 42 14, 8	26	20
20	110	3 0 9 41, 4	17	13	20	140	7 2 55 58, 1	22	16	20	171	11 9 47 47, 4	26	20
21	111	3 4 15 13, 9	17	13	21	141	7 7 1 30, 6	22	16	21	172	11 13 53 19, 9	27	20
22	112	3 8 20 46, 5	17	13	22	142	7 11 7 3, 2	22	16	22	173	11 17 58 52, 5	27	20
23	113	3 12 26 19, 0	17	13	23	143	7 15 12 35, 8	22	17	23	174	11 22 4 25, 1	27	20
24	114	3 16 31 51, 6	18	13	24	144	7 19 18 8, 3	22	17	24	175	11 26 9 57, 6	27	20
25	115	3 20 37 24, 1	18	13	25	145	7 23 23 40, 9	22	17	25	176	0 0 15 30, 2	27	20
26	116	3 24 42 56, 7	18	13	26	146	7 27 29 13, 4	23	17	26	177	0 4 21 2, 7	27	20
27	117	3 28 48 29, 3	18	14	27	147	8 1 34 46, 0	23	17	27	178	0 8 26 35, 3	27	21
28	118	4 2 54 1, 8	18	14	28	148	8 5 40 18, 6	23	17	28	179	0 12 32 7, 9	28	21
29	119	4 6 59 34, 4	18	14	29	149	8 9 45 51, 1	23	17	29	180	0 16 37 40, 4	28	21
30	120	4 11 5 6, 9	18	14	30	150	8 13 51 23, 7	23	17	30	181	0 20 43 13, 0	28	21
					31	151	8 17 56 56, 2	23	17					

TABULA IV.

Mediorum motuum Mercurii pro diebus mensium.

JULIUS.					AUGUSTUS.					SEPTEMBER.				
Dies mens.	Dies anni	Long. med. ☿	Aphelium	Nodus	Dies mens.	Dies anni.	Long. med. ☿	Aphelium	Nodus	Dies mens.	Dies anni	Long. med. ☿	Aphelium	Nodus
1	182	0ˢ 24° 48′ 45,″5	28″	21″	1	213	5ˢ 1° 40′ 34,″8	33″	25″	1	244	9ˢ 8° 32′ 24″,1	38″	28″
2	183	0 28 54 18, 1	28	21	2	214	5 5 46 7, 4	33	25	2	245	9 12 37 56, 7	38	28
3	184	1 2 59 50, 6	28	21	3	215	5 9 51 39, 9	33	25	3	246	9 16 43 29, 2	38	28
4	185	1 7 5 23, 2	29	21	4	216	5 13 57 12, 5	33	25	4	247	9 20 49 1, 8	38	29
5	186	1 11 10 55, 8	29	21	5	217	5 18 2 45, 1	33	25	5	248	9 24 54 34, 3	38	29
6	187	1 15 16 28, 3	29	22	6	218	5 22 8 17, 6	34	25	6	249	9 29 0 6, 9	38	29
7	188	1 19 22 0, 9	29	22	7	219	5 26 13 50, 2	34	25	7	250	10 3 5 39, 5	39	29
8	189	1 23 27 33, 4	29	22	8	220	6 0 19 22, 7	34	25	8	251	10 7 11 12, 0	39	29
9	190	1 27 33 6, 0	29	22	9	221	6 4 24 55, 3	34	26	9	252	10 11 16 44, 6	39	29
10	191	2 1 38 38, 4	29	22	10	222	6 8 30 27, 8	34	26	10	253	10 15 22 17, 1	39	29
11	192	2 5 44 11, 1	30	22	11	223	6 12 36 0, 4	34	26	11	254	10 19 27 49, 7	39	29
12	193	2 9 49 43, 7	30	22	12	224	6 16 41 33, 0	35	26	12	255	10 23 33 22, 2	39	29
13	194	2 13 55 16, 2	30	22	13	225	6 20 47 5, 5	35	26	13	256	10 27 38 54, 8	39	30
14	195	2 18 0 48, 8	30	23	14	226	6 24 52 38, 1	35	26	14	257	11 1 44 27, 4	40	30
15	196	2 22 6 21, 3	30	23	15	227	6 28 58 10, 6	35	26	15	258	11 5 49 59, 9	40	30
16	197	2 26 11 53, 9	30	23	16	228	7 3 3 43, 2	35	26	16	259	11 9 55 32, 5	40	30
17	198	3 0 17 26, 4	31	23	17	229	7 7 9 15, 8	35	26	17	260	11 14 1 5, 0	40	30
18	199	3 4 22 59, 0	31	23	18	230	7 11 14 48, 3	35	27	18	261	11 18 6 37, 6	40	30
19	200	3 8 28 31, 6	31	23	19	231	7 15 20 20, 9	36	27	19	262	11 22 12 10, 2	40	30
20	201	3 12 34 4, 1	31	23	20	232	7 19 25 53, 4	36	27	20	263	11 26 17 42, 7	41	30
21	202	3 16 39 36, 7	31	23	21	233	7 23 31 26, 0	36	27	21	264	0 0 23 15, 3	41	30
22	203	3 20 45 9, 2	31	23	22	234	7 27 36 58, 5	36	27	22	265	0 4 28 47, 8	41	31
23	204	3 24 50 41, 8	31	24	23	235	8 1 42 31, 1	36	27	23	266	0 8 34 20, 4	41	31
24	205	3 28 56 14, 4	32	24	24	236	8 5 48 3, 6	36	27	24	267	0 12 39 52, 9	41	31
25	206	4 3 1 46, 9	32	24	25	237	8 9 53 36, 2	37	27	25	268	0 16 45 25, 5	41	31
26	207	4 7 7 19, 5	32	24	26	238	8 13 59 8, 8	37	27	26	269	0 20 50 58, 1	41	31
27	208	4 11 12 52, 0	32	24	27	239	8 18 4 41, 3	37	28	27	270	0 24 56 30, 6	42	31
28	209	4 15 18 24, 6	32	24	28	240	8 22 10 13, 9	37	28	28	271	0 29 2 3, 2	42	31
29	210	4 19 23 57, 1	32	24	29	241	8 26 15 46, 4	37	28	29	272	1 3 7 35, 7	42	31
30	211	4 23 29 29, 7	33	24	30	242	9 0 21 19, 0	37	28	30	273	1 7 13 8, 3	42	32
31	212	4 27 35 2, 3	33	24	31	243	9 4 26 51, 6	37	28					

TABULA IV.

Mediorum motuum Mercurii pro diebus mensium.

OCTOBER.					NOVEMBER.					DECEMBER.				
Dies mens.	Dies anni	Long. med. ☿	Aphelium	Nodus	Dies mens.	Dies anni.	Long. med. ☿	Aphelium	Nodus	Dies mens.	Dies anni	Long. med. ☿	Aphelium	Nodus
1	274	1ˢ 11° 18′ 40,″9	42″	32″	1	305	5ˢ 18° 10′ 30,″2	47″	35″	1	335	9ˢ 20° 56′ 46,″9	52″	39″
2	275	1 15 24 13, 4	42	32	2	306	5 22 16 2, 7	47	35	2	336	9 25 2 19, 4	52	39
3	276	1 19 29 46, 0	43	32	3	307	5 26 21 35, 3	47	35	3	337	9 29 7 52, 0	52	39
4	277	1 23 35 18, 5	43	32	4	308	6 0 27 7, 8	47	36	4	338	10 3 13 24, 5	52	39
5	278	1 27 40 51, 1	43	32	5	309	6 4 32 40, 4	48	36	5	339	10 7 18 57, 1	52	39
6	279	2 1 46 23, 6	43	32	6	310	6 8 38 12, 9	48	36	6	340	10 11 24 29, 7	52	39
7	280	2 5 51 56, 2	43	32	7	311	6 12 43 45, 5	48	36	7	341	10 15 30 2, 2	53	39
8	281	2 9 57 28, 8	43	32	8	312	6 16 49 18, 0	48	36	8	342	10 19 35 34, 8	53	39
9	282	2 14 3 1, 3	44	33	9	313	6 20 54 50, 6	48	36	9	343	10 23 41 7, 3	53	40
10	283	2 18 8 33, 9	44	33	10	314	6 25 0 23, 2	48	36	10	344	10 27 46 39, 9	53	40
11	284	2 22 14 6, 4	44	33	11	315	6 29 5 55, 7	49	36	11	345	11 1 52 12, 4	53	40
12	285	2 26 19 39, 0	44	33	12	316	7 3 11 28, 3	49	36	12	346	11 5 57 45, 0	53	40
13	286	3 0 25 11, 5	44	33	13	317	7 7 17 0, 8	49	37	13	347	11 10 3 17, 6	53	40
14	287	3 4 30 44, 1	44	33	14	318	7 11 22 33, 4	49	37	14	348	11 14 8 50, 1	54	40
15	288	3 8 36 16, 7	44	33	15	319	7 15 28 6, 0	49	37	15	349	11 18 14 22, 7	54	40
16	289	3 12 41 49, 2	45	33	16	320	7 19 33 38, 5	49	37	16	350	11 22 19 55, 2	54	40
17	290	3 16 47 21, 8	45	33	17	321	7 23 39 11, 1	49	37	17	351	11 26 25 27, 8	54	41
18	291	3 20 52 54, 3	45	34	18	322	7 27 44 43, 6	50	37	18	352	0 0 31 0, 4	54	41
19	292	3 24 58 26, 9	45	34	19	323	8 1 50 16, 2	50	37	19	353	0 4 36 32, 9	54	41
20	293	3 29 3 59, 4	45	34	20	324	8 5 55 48, 7	50	37	20	354	0 8 42 5, 5	55	41
21	294	4 3 9 32, 0	45	34	21	325	8 10 1 21, 3	50	38	21	355	0 12 47 38, 0	55	41
22	295	4 7 15 4, 6	45	34	22	326	8 14 6 53, 9	50	38	22	356	0 16 53 10, 6	55	41
23	296	4 11 20 37, 1	46	34	23	327	8 18 12 26, 4	50	38	23	357	0 20 58 43, 1	55	41
24	297	4 15 26 9, 7	46	34	24	328	8 22 17 59, 0	51	38	24	358	0 25 4 15, 7	55	41
25	298	4 19 31 42, 2	46	34	25	329	8 26 23 31, 5	51	38	25	359	0 29 9 48, 3	55	41
26	299	4 23 37 14, 8	46	35	26	330	9 0 29 4, 1	51	38	26	360	1 3 15 20, 8	55	42
27	300	4 27 42 47, 3	46	35	27	331	9 4 34 36, 6	52	38	27	361	1 7 20 53, 4	56	42
28	301	5 1 48 19, 9	46	35	28	332	9 8 40 9, 2	51	38	28	362	1 11 26 25, 9	56	42
29	302	5 5 53 52, 5	47	35	29	333	9 12 45 41, 8	51	38	29	363	1 15 31 58, 5	56	42
30	303	5 9 59 25, 0	47	35	30	334	9 16 51 14, 3	51	39	30	364	1 19 37 31, 1	56	42
31	304	5 14 4 57, 6	47	35						31	365	1 23 43 3, 6	56	42

TABULA V.

Mediorum motuum Mercurii pro Horis, Minutis et Secundis.

Hor.	Long. ☿	Min.	Long. ☿	Min.	Long. ☿	Min. Sec.	Long. ☿	Sec.	Long. ☿	Sec.	Long. ☿
1	0°10′13,″9	1	0′10,″2	25	4′15,″8	49	8′21,″3	13	2,″2	37	6,″3
2	0 20 27, 7	2	0 20, 5	26	4 26, 0	50	8 31, 5	14	2, 4	38	6, 5
3	0 30 41, 6	3	0 30, 7	27	4 36, 2	51	8 41, 8	15	2, 5	39	6, 6
4	0 40 55, 4	4	0 40, 9	28	4 46, 5	52	8 52, 0	16	2, 7	40	6, 8
5	0 51 9, 3	5	0 51, 1	29	4 56, 7	53	9 2, 2	17	2, 9	41	7, 0
6	1 1 23, 1	6	1 1, 4	30	5 6, 9	54	9 12, 5	18	3, 1	42	7, 2
7	1 11 37, 0	7	1 11, 6	31	5 17, 2	55	9 22, 7	19	3, 2	43	7, 3
8	1 21 50, 8	8	1 21, 8	32	5 27, 4	56	9 32, 9	20	3, 4	44	7, 5
9	1 32 4, 7	9	1 32, 1	33	5 37, 6	57	9 43, 2	21	3, 6	45	7, 7
10	1 42 18, 6	10	1 42, 3	34	5 47, 8	58	9 53, 4	22	3, 7	46	7, 8
11	1 52 32, 4	11	1 52, 5	35	5 58, 1	59	10 3, 6	23	3, 9	47	8, 0
12	2 2 46, 3	12	2 2, 8	36	6 8, 3	60	10 13, 9	24	4, 1	48	8, 2
13	2 13 0, 1	13	2 13, 0	37	6 18, 5	1	0, 2	25	4, 3	49	8, 3
14	2 23 14, 0	14	2 23, 2	38	6 28, 8	2	0, 3	26	4, 4	50	8, 5
15	2 33 27, 8	15	2 32, 5	39	6 39, 0	3	0, 5	27	4, 6	51	8, 7
16	2 43 41, 7	16	2 43, 7	40	6 49, 2	4	0, 7	28	4, 8	52	8, 9
17	2 53 55, 6	17	2 53, 9	41	6 59, 5	5	0, 8	29	4, 9	53	9, 0
18	3 4 9, 4	18	3 4, 1	42	7 9, 7	6	1, 0	30	5, 1	54	9, 2
19	3 14 23, 3	19	3 14, 4	43	7 19, 9	7	1, 2	31	5, 3	55	9, 4
20	3 24 37, 1	20	3 24, 6	44	7 30, 2	8	1, 4	32	5, 4	56	9, 5
21	3 34 51, 0	21	3 34, 8	45	7 40, 4	9	1, 5	33	5, 6	57	9, 7
22	3 45 4, 8	22	3 45, 1	46	7 50, 6	10	1, 7	34	5, 8	58	9, 9
23	3 55 18, 7	23	3 55, 3	47	8 0, 8	11	1, 9	35	6, 0	59	10, 0
24	4 5 32, 6	24	4 5, 5	48	8 11, 1	12	1, 0	36	6, 1	60	10, 2

Partes decimales anni.

1 Januar.	0,002740	30 April.	0,328767	28 Aug.	0,657534
10 Januar.	0,027397	10 Maj.	0,356164	7 Sept.	0,684931
20 Januar.	0,054794	20 Maj.	0,383562	17 Sept.	0,712329
30 Januar.	0,082192	30 Maj.	0,410959	27 Sept.	0,739726
9 Febr.	0,109589	9 Jun.	0,438356	7 Oct.	0,767123
19 Febr.	0,136986	19 Jun.	0,465753	17 Oct.	0,794521
1 Mart.	0,164384	29 Jun.	0,493151	27 Oct.	0,821918
11 Mart.	0,191781	9 Jul.	0,520548	6 Nov.	0,849315
21 Mart.	0,219178	19 Jul.	0,547945	16 Nov.	0,876712
31 Mart.	0,246575	29 Jul.	0,575342	26 Nov.	0,904110
10 April.	0,273973	8 Aug.	0,602740	6 Dec.	0,931507
20 April.	0,301370	18 Aug.	0,630137	16 Dec.	0,958904
30 April.	0,328267	28 Aug.	0,657534	26 Dec.	0,986301

AEQUATIO CENTRI MERCURII

IN

HYPOTHESI ELLIPTICA

PRO ANNO 1800

CUM VARIATIONE SAECULARI.

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	$O^S -$	Diff. pro 1′	Var. saecul.	$I^S -$	Diff. pro 1′	Var. saecul.	$II^S -$	Diff. pro 1′	Var. saecul.	Anom. med.
			—			—			—	
0° 0′	0° 0′ 0,″0	19,″60	0,″0	9°34′56,″3	18,″27	0,″5	17°47′20,″9	13,″98	1,″0	30° 0′
10	0 3 16, 0	60	0, 0	9 37 59, 0	26	0, 5	17 49 40, 7	95	1, 0	50
20	0 6 32, 0	61	0, 0	9 41 1, 6	24	0, 5	17 52 0, 2	91	1, 0	40
30	0 9 48, 1	60	0, 0	9 44 4, 0	22	0, 5	17 54 19, 3	88	1, 0	30
40	0 13 4, 1	60	0, 0	9 47 6, 2	21	0, 5	17 56 38, 1	85	1, 0	20
50	0 16 20, 1	60	0, 0	9 50 8, 3	20	0, 5	17 58 56, 6	81	1, 0	10
1 0	0 19 36, 1	60	0, 0	9 53 10, 3	18	0, 5	18 1 14, 7	78	1, 0	29 0
10	0 22 52, 1	60	0, 0	9 56 12, 1	16	0, 5	18 3 32, 5	74	1, 0	50
20	0 26 8, 1	60	0, 0	9 59 13, 7	15	0, 5	18 5 49, 9	71	1, 0	40
30	0 29 24, 1	60	0, 0	10 2 15, 2	13	0, 5	18 8 7, 0	67	1, 0	30
40	0 32 40, 1	60	0, 0	10 5 16, 5	11	0, 5	18 10 23, 7	64	1, 1	20
50	0 35 56, 1	60	0, 0	10 8 17, 6	10	0, 6	18 12 40, 1	61	1, 1	10
2 0	0 39 12, 1	60	0, 0	10 11 18, 6	09	0, 6	18 14 56, 2	57	1, 1	28 0
10	0 42 28, 1	59	0, 0	10 14 19, 5	07	0, 6	18 17 11, 9	53	1, 1	50
20	0 45 44, 0	60	0, 0	10 17 20, 2	05	0, 6	18 19 27, 2	50	1, 1	40
30	0 49 0, 0	59	0, 0	10 20 20, 7	03	0, 6	18 21 42, 2	47	1, 1	30
40	0 52 15, 9	59	0, 0	10 23 21, 0	02	0, 6	18 23 56, 9	43	1, 1	20
50	0 55 31, 8	59	0, 0	10 26 21, 2	18, 00	0, 6	18 26 11, 2	39	1, 1	10
3 0	0 58 47, 7	59	0, 1	10 29 21, 2	17, 99	0, 6	18 28 25, 1	36	1, 1	27 0
10	1 2 3, 6	59	0, 1	10 32 21, 1	97	0, 6	18 30 38, 7	32	1, 1	50
20	1 5 19, 5	59	0, 1	10 35 20, 8	95	0, 6	18 32 51, 9	29	1, 1	40
30	1 8 35, 4	58	0, 1	10 38 20, 3	93	0, 6	18 35 4, 8	25	1, 1	30
40	1 11 51, 2	58	0, 1	10 41 19, 6	92	0, 6	18 37 17, 3	22	1, 1	20
50	1 15 7, 0	58	0, 1	10 44 18, 8	90	0, 6	18 39 29, 5	18	1, 1	10
4 0	1 18 22, 8	58	0, 1	10 47 17, 8	89	0, 6	18 41 41, 3	14	1, 1	26 0
10	1 21 38, 6	58	0, 1	10 50 16, 7	86	0, 6	18 43 52, 7	10	1, 1	50
20	1 24 54, 4	57	0, 1	10 53 15, 3	85	0, 6	18 46 3, 7	07	1, 1	40
30	1 28 10, 1	57	0, 1	10 56 13, 8	83	0, 6	18 48 14, 4	03	1, 1	30
40	1 31 25, 8	57	0, 1	10 59 12, 1	82	0, 6	18 50 24, 7	13, 00	1, 1	20
50	1 34 41, 5	57	0, 1	11 2 10, 3	79	0, 6	18 52 34, 7	12, 96	1, 1	10
5 0	1 37 57, 2	57	0, 1	11 5 8, 2	78	0, 6	18 54 44, 3	92	1, 1	25 0
10	1 41 12, 9	56	0, 1	11 8 6, 0	76	0, 6	18 56 53, 5	88	1, 1	50
20	1 44 28, 5	56	0, 1	11 11 3, 6	75	0, 6	18 59 2, 3	85	1, 1	40
30	1 47 44, 1	56	0, 1	11 14 1, 1	72	0, 6	19 1 10, 8	81	1, 1	30
40	1 50 59, 7	55	0, 1	11 16 58, 3	71	0, 6	19 3 18, 9	77	1, 1	20
50	1 54 15, 2	19, 56	0, 1	11 19 55, 4	17, 69	0, 6	19 5 26, 6	12, 74	1, 1	10
6 0	1 57 30, 8		0, 1	11 22 52, 3		0, 6	19 7 34, 0		1, 1	24 0
	XI^S +		+	X^S +		+	IX^S +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	III^{s} _	Diff. pro 1′	Var. saecul.	IV^{s} _	Diff. pro 1′	Var. saecul.	V^{s} _	Diff. pro 1′	Var. saecul	Anom. med.
			—			—			—	
0° 0′	22° 56′ 5,″5	5,″80	1,″5	22° 46′ 12,″8	7,″41	1,″7	14° 55′ 45,″0	24,″06	1,″3	30° 0′
10	22 57 3, 5	75	1, 5	22 44 58, 7	51	1, 7	14 51 44, 4	14	1, 2	50
20	22 58 1, 0	68	1, 5	22 43 43, 6	59	1, 7	14 47 43, 0	22	1, 2	40
30	22 58 57, 8	62	1, 5	22 42 27, 7	68	1, 7	14 43 40, 8	32	1, 2	30
40	22 59 54, 0	57	1, 5	22 41 10, 9	77	1, 7	14 39 37, 6	40	1, 2	20
50	23 0 49, 7	51	1, 5	22 39 53, 2	85	1, 7	14 35 33, 6	48	1, 2	10
1 0	23 1 44, 8	44	1, 5	22 38 34, 7	7, 95	1, 7	14 31 28, 8	57	1, 2	29 0
10	23 2 39, 2	39	1, 5	22 37 15, 2	8, 03	1, 7	14 27 23, 1	66	1, 2	50
20	23 3 33, 1	33	1, 5	22 35 54, 9	12	1, 7	14 23 16, 5	74	1, 2	40
30	23 4 26, 4	27	1, 5	22 34 33, 7	21	1, 7	14 19 9, 1	82	1, 2	30
40	23 5 19, 1	20	1, 5	22 33 11, 6	30	1, 7	14 15 0, 9	24, 91	1, 2	20
50	23 6 11, 1	15	1, 5	22 31 48, 6	39	1, 7	14 10 51, 8	25, 00	1, 2	10
2 0	23 7 2, 6	09	1, 5	22 30 24, 7	47	1, 7	14 6 41, 8	08	1, 2	28 0
10	23 7 53, 5	5, 02	1, 5	22 29 0, 0	57	1, 7	14 2 31, 0	16	1, 2	50
20	23 8 43, 7	4, 97	1, 5	22 27 34, 3	66	1, 7	13 58 19, 4	24	1, 2	40
30	23 9 33, 4	90	1, 5	22 26 7, 7	74	1, 7	13 54 7, 0	33	1, 2	30
40	23 10 22, 4	84	1, 5	22 24 40, 3	83	1, 7	13 49 53, 7	41	1, 2	20
50	23 11 10, 8	78	1, 5	22 23 12, 0	8, 93	1, 7	13 45 39, 6	49	1, 2	10
3 0	23 11 58, 6	72	1, 5	22 21 42, 7	9, 01	1, 7	13 41 24, 7	58	1, 2	27 0
10	23 12 45, 8	66	1, 5	22 20 12, 6	11	1, 7	13 37 8, 9	65	1, 2	50
20	23 13 32, 4	60	1, 5	22 18 41, 5	19	1, 7	13 32 52, 4	74	1, 1	40
30	23 14 18, 4	53	1, 5	22 17 9, 6	28	1, 7	13 28 35, 0	82	1, 1	30
40	23 15 3, 7	48	1, 5	22 15 36, 8	38	1, 7	13 24 16, 8	90	1, 1	20
50	23 15 48, 5	41	1, 5	22 14 3, 0	46	1, 7	13 19 57, 8	25, 99	1, 1	10
4 0	23 16 32, 6	35	1, 5	22 12 28, 4	56	1, 7	13 15 37, 9	26, 06	1. 1	26 0
10	23 17 16, 1	28	1, 5	22 10 52, 8	64	1, 7	13 11 17, 3	14	1, 1	50
20	23 17 58, 9	22	1, 5	22 9 16, 4	74	1, 7	13 6 55, 9	23	1, 1	40
30	23 18 41, 1	16	1, 5	22 7 39, 0	83	1, 6	13 2 33, 6	30	1, 1	30
40	23 19 22, 7	10	1, 5	22 6 0, 7	9, 92	1, 6	12 58 10, 6	38	1, 1	20
50	23 20 3, 7	4, 03	1, 5	22 4 21, 5	10, 00	1, 6	12 53 46, 8	46	1, 1	10
5 0	23 20 44, 0	3, 97	1, 5	22 2 41, 5	10	1, 6	12 49 22, 2	54	1, 1	25 0
10	23 21 23, 7	91	1, 5	22 1 0, 5	19	1, 6	12 44 56, 8	62	1, 1	50
20	23 22 2, 8	84	1, 5	21 59 18, 6	29	1, 6	12 40 30, 6	70	1, 1	40
30	23 22 41, 2	78	1, 5	21 57 35, 7	37	1, 6	12 36 3, 6	77	1, 1	30
40	23 23 19, 0	71	1, 5	21 55 52, 0	47	1, 6	12 31 35, 9	85	1, 1	20
50	23 23 56, 1	3, 65	1, 5	21 54 7, 3	10, 55	1. 6	12 27 7, 4	26, 93	1, 1	10
6 0	23 24 32, 6		1. 5	21 52 21. 8		1. 6	12 22 38. 1		1. 1	24 0
	VIII^{s} +		+	VII^{s} +		+	VI^{s} +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1300 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	O^s _	Diff. pro 1′	Var. saecul.	I^s _	Diff. pro 1′	Var. saecul.	II^s _	Diff. pro 1′	Var. saecul.	Anom. med.
			—			—			—	
6° 0′	1°57′30,″8	19,″55	0,″1	11°22′52,″3	17,″67	0,″6	19° 7′34,″0	12,″69	1,″1	24° 0′
10	2 0 46, 3	54	0, 1	11 25 49, 0	65	0, 6	19 9 40, 9	66	1, 1	50
20	2 4 1, 7	55	0, 1	11 28 45, 5	63	0, 6	19 11 47, 5	62	1, 1	40
30	2 7 17, 2	54	0, 1	11 31 41, 8	62	0, 6	19 13 53, 7	58	1, 1	30
40	2 10 32, 6	53	0, 1	11 34 38, 0	59	0, 6	19 15 59, 5	55	1, 1	20
50	2 13 47, 9	54	0, 1	11 37 33, 9	58	0, 6	19 18 5, 0	50	1, 1	10
7 0	2 17 3, 3	53	0, 1	11 40 29, 7	56	0, 6	19 20 10, 0	47	1, 1	23 0
10	2 20 18, 6	52	0, 1	11 43 25, 3	54	0, 6	19 22 14, 7	43	1, 1	50
20	2 23 33, 8	53	0, 1	11 46 20, 7	52	0, 6	19 24 19, 0	38	1, 1	40
30	2 26 49, 1	52	0, 1	11 49 15, 9	50	0, 6	19 26 22, 8	35	1, 1	30
40	2 30 4, 3	51	0, 1	11 52 10, 9	48	0, 7	19 28 26, 3	31	1, 1	20
50	2 33 19, 4	51	0, 1	11 55 5, 7	46	0, 7	19 30 29, 4	28	1, 1	10
8 0	2 36 34, 5	51	0, 1	11 58 0, 3	45	0, 7	19 32 32, 2	23	1, 2	22 0
10	2 39 49, 6	51	0, 1	12 0 54, 8	42	0, 7	19 34 34, 5	19	1, 2	50
20	2 43 4, 7	50	0, 1	12 3 49, 0	41	0, 7	19 36 36, 4	15	1, 2	40
30	2 46 19, 7	49	0, 1	12 6 43, 1	38	0, 7	19 38 37, 9	12	1, 2	30
40	2 49 34, 6	49	0, 1	12 9 36, 9	36	0, 7	19 40 39, 1	07	1, 2	20
50	2 52 49, 5	49	0, 2	12 12 30, 5	35	0, 7	19 42 39, 8	03	1, 2	10
9 0	2 56 4, 4	49	0, 2	12 15 24, 0	32	0, 7	19 44 40, 1	12, 00	1, 2	21 0
10	2 59 19, 3	48	0, 2	12 18 17, 2	31	0, 7	19 46 40, 1	11, 95	1, 2	50
20	3 2 34, 1	47	0, 2	12 21 10, 3	28	0, 7	19 48 39, 6	91	1, 2	40
30	3 5 48, 8	47	0, 2	12 24 3, 1	27	0, 7	19 50 38, 7	87	1, 2	30
40	3 9 3, 5	47	0, 2	12 26 55, 8	24	0, 7	19 52 37, 4	83	1, 2	20
50	3 12 18, 2	46	0, 2	12 29 48, 2	23	0, 7	19 54 35, 7	79	1, 2	10
10 0	3 15 32, 8	45	0, 2	12 32 40, 5	20	0, 7	19 56 33, 6	75	1, 2	20 0
10	3 18 47, 3	45	0, 2	12 35 32, 5	18	0, 7	19 58 31, 1	71	1, 2	50
20	3 22 1, 8	45	0, 2	12 38 24, 3	16	0, 7	20 0 28, 2	67	1, 2	40
30	3 25 16, 3	44	0, 2	12 41 15, 9	14	0, 7	20 2 24, 9	62	1, 2	30
40	3 28 30, 7	43	0, 2	12 44 7, 3	12	0, 7	20 4 21, 1	59	1, 2	20
50	3 31 45, 0	43	0, 2	12 46 58, 5	10	0, 7	20 6 17, 0	54	1, 2	10
11 0	3 34 59, 3	43	0, 2	12 49 49, 5	08	0, 7	20 8 12, 4	50	1, 2	19 0
10	3 38 13, 6	42	0, 2	12 52 40, 3	05	0, 7	20 10 7, 4	46	1, 2	50
20	3 41 27, 8	41	0, 2	12 55 30, 8	04	0, 7	20 12 2, 0	42	1, 2	40
30	3 44 41, 9	41	0, 2	12 58 21, 2	17, 01	0, 7	20 13 56, 2	37	1, 2	30
40	3 47 56, 0	40	0, 2	13 1 11, 3	16, 99	0, 7	20 15 49, 9	33	1, 2	20
50	3 51 10, 0	19, 40	0, 2	13 4 1, 2	16, 97	0, 7	20 17 43, 2	11, 29	1, 2	10
12 0	3 54 24, 0		0, 2	13 6 50, 9		0, 7	20 19 36, 1		1, 2	18 0
	XI^s +		+	X^s +		+	IX^s +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	III^{s} _	Diff. pro 1′	Var. saecul.	IV^{s} _	Diff. pro 1′	Var. saecul.	V^{s} _	Diff. pro 1′	Var. saecul.	Anom. med.
			—			—			—	
6° 0′	23° 24′ 32,″6	3,″59	1,″5	21° 52′ 21,″8	10,″65	1,″6	12° 22′ 38,″1	27,″01	1,″1	24° 0′
10	23 25 8, 5	52	1, 5	21 50 35, 3	74	1, 6	12 18 8, 0	08	1, 1	50
20	23 25 43, 7	45	1, 5	21 48 47, 9	84	1, 6	12 13 37, 2	16	1, 0	40
30	23 26 18, 2	39	1, 5	21 46 59, 5	10, 92	1, 6	12 9 5, 6	23	1, 0	30
40	23 26 52, 1	33	1, 5	21 45 10, 3	11, 02	1, 6	12 4 33, 3	31	1, 0	20
50	23 27 25, 4	26	1, 5	21 43 20, 1	11	1, 6	12 0 0, 2	38	1, 0	10
7 0	23 27 58, 0	20	1, 5	21 41 29, 0	20	1, 6	11 55 26, 4	46	1, 0	23 0
10	23 28 30, 0	13	1, 5	21 39 37, 0	30	1, 6	11 50 51, 8	53	1, 0	50
20	23 29 1, 3	06	1, 5	21 37 44, 0	38	1, 6	11 46 16, 5	61	1, 0	40
30	23 29 31, 9	3, 00	1, 5	21 35 50, 2	48	1, 6	11 41 40, 4	68	1, 0	30
40	23 30 1, 9	2, 93	1, 5	21 33 55, 4	57	1, 6	11 37 3, 6	75	1, 0	20
50	23 30 31, 2	87	1, 5	21 31 59, 7	67	1, 6	11 32 26, 1	83	1, 0	10
8 0	23 30 59, 9	80	1, 5	21 30 3, 0	76	1, 6	11 27 47, 8	90	1, 0	22 0
10	23 31 27, 9	73	1, 5	21 28 5, 4	85	1, 6	11 23 8, 8	27, 97	1, 0	50
20	23 31 55, 2	66	1, 6	21 26 6, 9	11, 94	1, 6	11 18 29, 1	28, 04	1, 0	40
30	23 32 21, 8	60	1, 6	21 24 7, 5	12, 04	1, 6	11 13 48, 7	11	1, 0	30
40	23 32 47, 8	53	1, 6	21 22 7, 1	13	1, 6	11 9 7, 6	19	1, 0	20
50	23 33 13, 1	47	1, 6	21 20 5, 8	22	1, 6	11 4 25, 7	25	1, 0	10
9 0	23 33 37, 8	40	1, 6	21 18 3, 6	32	1, 6	10 59 43, 2	33	1, 0	21 0
10	23 34 1, 8	33	1, 6	21 16 0, 4	41	1, 6	10 54 59, 9	39	0, 9	50
20	23 34 25, 1	26	1, 6	21 13 56, 3	51	1, 6	10 50 16, 0	47	0, 9	40
30	23 34 47, 7	19	1, 6	21 11 51, 2	59	1, 6	10 45 31, 3	53	0, 9	30
40	23 35 9, 6	13	1, 6	21 9 45, 3	69	1, 6	10 40 46, 0	60	0, 9	20
50	23 35 30, 9	2, 05	1, 6	21 7 38, 4	79	1, 6	10 36 0, 0	67	0, 9	10
10 0	23 35 51, 4	1, 99	1, 6	21 5 30, 5	88	1, 6	10 31 13, 3	74	0, 9	20 0
10	23 36 11, 3	92	1, 6	21 3 21, 7	12, 97	1, 6	10 26 25, 9	80	0, 9	50
20	23 36 30, 5	85	1, 6	21 1 12, 0	13, 07	1, 6	10 21 37, 9	87	0, 9	40
30	23 36 49, 0	79	1, 6	20 59 1, 3	16	1, 6	10 16 49, 2	28, 94	0, 9	30
40	23 37 6, 9	71	1, 6	20 56 49, 7	25	1, 6	10 11 59, 8	29, 00	0, 9	20
50	23 37 24, 0	64	1, 6	20 54 37, 2	35	1, 6	10 7 9, 8	07	0, 9	10
11 0	23 37 40, 4	58	1, 6	20 52 23, 7	44	1, 6	10 2 19, 1	14	0, 9	19 0
10	23 37 56, 2	50	1, 6	20 50 9, 3	54	1, 6	9 57 27, 7	20	0, 9	50
20	23 38 11, 2	44	1, 6	20 47 53, 9	63	1, 6	9 52 35, 7	26	0, 9	40
30	23 38 25, 6	36	1, 6	20 45 37, 6	73	1, 6	9 47 43, 1	33	0, 9	30
40	23 38 39, 2	30	1, 6	20 43 20, 3	82	1, 6	9 42 49, 8	39	0, 8	20
50	23 38 52, 2	1, 22	1, 6	20 41 2, 1	13, 91	1, 6	9 37 55, 9	29, 45	0, 8	10
12 0	23 39 4, 4		1, 6	20 38 43, 0		1, 6	9 33 1, 4		0, 8	18 0
	VIII^{s} +		+	VII^{s} +		+	VI^{s} +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	O^s _	Diff. pro 1′	Var. saecul.	I^s _	Diff. pro 1′	Var. saecul.	II^s _	Diff. pro 1′	Var. saecul.	Anom. med.
			—			—			—	
12° 0′	3°54′24,″0	19,″39	0,″2	13° 6′50,″9	16,″95	0,″7	20°19′36,″1	11,″25	1,″2	18° 0′
10	3 57 37, 9	39	0, 2	13 9 40, 4	93	0, 7	20 21 28, 6	20	1, 2	50
20	4 0 51, 8	38	0, 2	13 12 29, 7	90	0, 7	20 23 20, 6	16	1, 2	40
30	4 4 5, 6	37	0, 2	13 15 18, 7	88	0, 7	20 25 12, 2	12	1, 2	30
40	4 7 19, 3	37	0, 2	13 18 7, 5	86	0, 7	20 27 3, 4	08	1, 2	20
50	4 10 33, 0	36	0, 2	13 20 56, 1	84	0, 7	20 28 54, 2	11, 03	1, 2	10
13 0	4 13 46, 6	35	0, 2	13 23 44, 5	82	0, 7	20 30 44, 5	10, 99	1, 2	17 0
10	4 17 0, 1	35	0, 2	13 26 32, 7	79	0, 7	20 32 34, 4	94	1, 2	50
20	4 20 13, 6	34	0, 2	13 29 20, 6	77	0, 7	20 34 23, 8	90	1, 2	40
30	4 23 27, 0	34	0, 2	13 32 8, 3	75	0, 8	20 36 12, 8	86	1, 2	30
40	4 26 40, 4	33	0, 2	13 34 55, 8	72	0, 8	20 38 1, 4	82	1, 2	20
50	4 29 53, 7	32	0, 2	13 37 43, 0	70	0, 8	20 39 49, 6	77	1, 2	10
14 0	4 33 6, 9	32	0, 2	13 40 30, 0	68	0, 8	20 41 37, 3	72	1, 2	16 0
10	4 36 20, 1	31	0, 2	13 43 16, 8	66	0, 8	20 43 24, 5	68	1, 2	50
20	4 39 33, 2	30	0, 2	13 46 3, 4	63	0, 8	20 45 11, 3	64	1, 2	40
30	4 42 46, 2	29	0, 3	13 48 49, 7	61	0, 8	20 46 57, 7	59	1, 2	30
40	4 45 59, 1	29	0, 3	13 51 35, 8	59	0, 8	20 48 43, 6	55	1, 3	20
50	4 49 12, 0	28	0, 3	13 54 21, 7	56	0, 8	20 50 29, 1	50	1, 3	10
15 0	4 52 24, 8	27	0, 3	13 57 7, 3	54	0, 8	20 52 14, 1	46	1, 3	15 0
10	4 55 37, 5	26	0, 3	13 59 52, 7	52	0, 8	20 53 58, 7	41	1, 3	50
20	4 58 50, 1	26	0, 3	14 2 37, 9	49	0, 8	20 55 42, 8	37	1, 3	40
30	5 2 2, 7	25	0, 3	14 5 22, 8	47	0, 8	20 57 26, 5	32	1, 3	30
40	5 5 15, 2	25	0, 3	14 8 7, 5	44	0, 8	20 59 9, 7	28	1, 3	20
50	5 8 27, 7	23	0, 3	14 10 51, 9	42	0, 8	21 0 52, 5	23	1, 3	10
16 0	5 11 40, 0	23	0, 3	14 13 36, 1	40	0, 8	21 2 34, 8	18	1, 3	14 0
10	5 14 52, 3	22	0, 3	14 16 20, 1	37	0, 8	21 4 16, 6	14	1, 3	50
20	5 18 4, 5	21	0, 3	14 19 3, 8	35	0, 8	21 5 58, 0	09	1, 3	40
30	5 21 16, 6	20	0, 3	14 21 47, 3	32	0, 8	21 7 38, 9	05	1, 3	30
40	5 24 28, 6	20	0, 3	14 24 30, 5	30	0, 8	21 9 19, 4	10, 00	1, 3	20
50	5 27 40, 6	18	0, 3	14 27 13, 5	27	0, 8	21 10 59, 4	9, 95	1, 3	10
17 0	5 30 52, 4	18	0, 3	14 29 56, 2	25	0, 8	21 12 38, 9	90	1, 3	13 0
10	5 34 4, 2	17	0, 3	14 32 38, 7	22	0, 8	21 14 17, 9	86	1, 3	50
20	5 37 15, 9	16	0, 3	14 35 20, 9	20	0, 8	21 15 56, 5	81	1, 3	40
30	5 40 27, 5	16	0, 3	14 38 2, 9	18	0, 8	21 17 34, 6	77	1, 3	30
40	5 43 39, 1	14	0, 3	14 40 44, 7	15	0, 8	21 19 12, 3	72	1, 3	20
50	5 46 50, 5	19, 14	0, 3	14 43 26, 2	16, 12	0, 8	21 20 49, 5	9, 67	1, 3	10
18 0	5 50 1, 9		0, 3	14 46 7, 4		0, 8	21 22 26, 2		1, 3	12 0
	XI^s +		+	X^s +		+	IX^s +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	III^{s} _	Diff. pro 1′	Var. saecul.	IV^{s} _	Diff. pro 1′	Var. saecul.	V^{s} _	Diff. pro 1′	Var. saecul.	Anom. med.
			—			—			—	
12° 0′	23° 39′ 4,″4	1,″16	1,″6	20° 38′ 43,″0	14,″01	1,″6	9° 33′ 1,″4	29,″52	0,″8	18° 0′
10	23 39 16, 0	08	1, 6	20 36 22, 9	11	1, 6	9 28 6, 2	58	0, 8	50
20	23 39 26, 8	1, 01	1, 6	20 34 1, 8	20	1, 6	9 23 10, 4	64	0, 8	40
30	23 39 36, 9	0, 95	1, 6	20 31 39, 8	29	1, 6	9 18 14, 0	70	0, 8	30
40	23 39 46, 4	87	1, 6	20 29 16, 9	39	1, 6	9 13 17, 0	76	0, 8	20
50	23 39 55, 1	80	1, 6	20 26 53, 0	48	1, 6	9 8 19, 4	82	0, 8	10
13 0	23 40 3, 1	73	1, 6	20 24 28, 2	58	1, 6	9 3 21, 2	88	0, 8	17 0
10	23 40 10, 4	65	1, 6	20 22 2, 4	67	1, 6	8 58 22, 4	29, 94	0, 8	50
20	23 40 16, 9	59	1, 6	20 19 35, 7	76	1, 6	8 53 23, 0	30, 00	0, 8	40
30	23 40 22, 8	51	1, 6	20 17 8, 1	86	1, 6	8 48 23, 0	06	0, 8	30
40	23 40 27, 9	44	1, 6	20 14 39, 5	14, 96	1, 6	8 43 22, 4	11	0, 8	20
50	23 40 32, 3	37	1, 6	20 12 9, 9	15, 05	1, 6	8 38 21, 3	17	0, 8	10
14 0	23 40 36, 0	29	1, 6	20 9 39, 4	15	1, 6	8 33 19, 6	23	0, 7	16 0
10	23 40 38, 9	23	1, 6	20 7 7, 9	24	1, 6	8 28 17, 3	29	0, 7	50
20	23 40 41, 2	15	1, 6	20 4 35, 5	34	1, 6	8 23 14, 4	34	0, 7	40
30	23 40 42, 7	08	1, 6	20 2 2, 1	43	1, 6	8 18 11, 0	40	0, 7	30
40	23 40 43, 5	0, 00	1, 6	19 59 27, 8	53	1, 6	8 13 7, 0	45	0, 7	20
50	23 40 43, 5	07	1, 6	19 56 52, 5	62	1, 6	8 8 2, 5	50	0, 7	10
15 0	23 40 42, 8	14	1, 6	19 54 16, 3	71	1, 6	8 2 57, 5	56	0, 7	15 0
10	23 40 41, 4	22	1, 6	19 51 39, 2	81	1, 6	7 57 51, 9	61	0, 7	50
20	23 40 39, 2	29	1, 6	19 49 1, 1	15, 91	1, 6	7 52 45, 8	67	0, 7	40
30	23 40 36, 3	36	1, 6	19 46 22, 0	16, 00	1, 6	7 47 39, 1	72	0, 7	30
40	23 40 32, 7	44	1, 6	19 43 42, 0	10	1, 6	7 42 31, 9	77	0, 7	20
50	23 40 28, 3	51	1, 6	19 41 1, 0	19	1, 6	7 37 24, 2	82	0, 7	10
16 0	23 40 23, 2	59	1, 6	19 38 19, 1	29	1, 5	7 32 16, 0	87	0, 7	14 0
10	23 40 17, 3	66	1, 6	19 35 36, 2	38	1, 5	7 27 7, 3	92	0, 7	50
20	23 40 10, 7	74	1, 6	19 32 52, 4	48	1, 5	7 21 58, 1	30, 97	0, 6	40
30	23 40 3, 3	81	1, 6	19 30 7, 6	57	1, 5	7 16 48, 4	31, 02	0, 6	30
40	23 39 55, 2	89	1, 6	19 27 21, 9	67	1, 5	7 11 38, 2	07	0, 6	20
50	23 39 46, 3	0, 96	1, 6	19 24 35, 2	76	1, 5	7 6 27, 5	12	0, 6	10
17 0	23 39 36, 7	1, 04	1, 6	19 21 47, 6	86	1, 5	7 1 16, 3	16	0, 6	13 0
10	23 39 26, 3	11	1, 6	19 18 59, 0	16, 95	1, 5	6 56 4, 7	21	0, 6	50
20	23 39 15, 2	19	1, 6	19 16 9, 5	17, 05	1, 5	6 50 52, 6	26	0, 6	40
30	23 39 3, 3	26	1, 6	19 13 19, 0	14	1, 5	6 45 40, 0	30	0, 6	30
40	23 38 50, 7	34	1, 6	19 10 27, 6	24	1, 5	6 40 27, 0	35	0, 6	20
50	23 38 37, 3	1, 42	1, 6	19 7 35, 2	17, 34	1, 5	6 35 13, 5	31, 40	0, 6	10
18 0	23 38 23, 1			19 4 41, 8			6 29 59, 5			12 0
	VIII^{s} +		+	VII^{s} +		+	VI^{s} +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	O^s _	Diff. pro 1′	Var. saecul.	I^s _	Diff. pro 1′	Var. saecul.	II^s _	Diff. pro 1′	Var. saecul.	Anom. med.
			—			—			—	
18° 0′	5°50′ 1,″9	19,″13	0,″3	14°46′ 7,″4	16,″10	0,″8	21°22′26,″2	9,″62	1,″3	12° 0′
10	5 53 13, 2	12	0, 3	14 48 48, 4	07	0, 8	21 24 2, 4	57	1, 3	50
20	5 56 24, 4	11	0, 3	14 51 29, 1	04	0, 8	21 25 38, 1	53	1, 3	40
30	5 59 35, 5	10	0, 3	14 54 9, 5	02	0, 8	21 27 13, 4	48	1, 3	30
40	6 2 46, 5	09	0, 3	14 56 49, 7	16, 00	0, 8	21 28 48, 2	43	1, 3	20
50	6 5 57, 4	08	0, 3	14 59 29, 7	15, 97	0, 8	21 30 22, 5	38	1, 3	10
19 0	6 9 8, 2	07	0, 3	15 2 9, 4	94	0, 8	21 31 56, 3	34	1, 3	11 0
10	6 12 18, 9	07	0, 3	15 4 48, 8	92	0, 8	21 33 29, 7	28	1, 3	50
20	6 15 29, 6	05	0, 3	15 7 28, 0	89	0, 8	21 35 2, 5	24	1, 3	40
30	6 18 40, 1	04	0, 3	15 10 6, 9	86	0, 9	21 36 34, 9	18	1, 3	30
40	6 21 50, 5	04	0, 3	15 12 45, 5	84	0, 9	21 38 6, 7	14	1, 3	20
50	6 25 0, 9	02	0, 3	15 15 23, 9	81	0, 9	21 39 38, 1	09	1, 3	10
20 0	6 28 11, 1	02	0, 3	15 18 2, 0	79	0, 9	21 41 9, 0	9, 04	1, 3	10 0
10	6 31 21, 3	19, 01	0, 4	15 20 39, 9	76	0, 9	21 42 39, 4	8, 99	1, 3	50
20	6 34 31, 4	18, 99	0, 4	15 23 17, 5	73	0, 9	21 44 9, 3	94	1, 3	40
30	6 37 41, 3	99	0, 4	15 25 54, 8	70	0, 9	21 45 38, 7	89	1, 3	30
40	6 40 51, 2	97	0, 4	15 28 31, 8	68	0, 9	21 47 7, 6	85	1, 3	20
50	6 44 0, 9	97	0, 4	15 31 8, 6	65	0, 9	21 48 36, 1	79	1, 3	10
21 0	6 47 10, 6	95	0, 4	15 33 45, 1	62	0, 9	21 50 4, 0	74	1, 3	9 0
10	6 50 20, 1	95	0, 4	15 36 21, 3	59	0, 9	21 51 31, 4	69	1, 3	50
20	6 53 29, 6	93	0, 4	15 38 57, 2	57	0, 9	21 52 58, 3	64	1, 3	40
30	6 56 38, 9	92	0, 4	15 41 32, 9	54	0, 9	21 54 24, 7	59	1, 3	30
40	6 59 48, 1	92	0, 4	15 44 8, 3	51	0, 9	21 55 50, 6	54	1, 4	20
50	7 2 57, 3	90	0, 4	15 46 43, 4	48	0, 9	21 57 16, 0	48	1, 4	10
22 0	7 6 6, 3	89	0, 4	15 49 18, 2	46	0, 9	21 58 40, 8	44	1, 4	8 0
10	7 9 15, 2	88	0, 4	15 51 52, 8	43	0, 9	22 0 5, 2	38	1, 4	50
20	7 12 24, 0	87	0, 4	15 54 27, 1	40	0, 9	22 1 29, 0	34	1, 4	40
30	7 15 32, 7	86	0, 4	15 57 1, 1	37	0, 9	22 2 52, 4	28	1, 4	30
40	7 18 41, 3	85	0, 4	15 59 34, 8	34	0, 9	22 4 15, 2	23	1, 4	20
50	7 21 49, 8	83	0, 4	16 2 8, 2	31	0, 9	22 5 37, 5	18	1, 4	10
23 0	7 24 58, 1	83	0, 4	16 4 41, 3	29	0, 9	22 6 59, 3	13	1, 4	7 0
10	7 28 6, 4	81	0, 4	16 7 14, 2	26	0, 9	22 8 20, 6	07	1, 4	50
20	7 31 14, 5	80	0, 4	16 9 46, 8	23	0, 9	22 9 41, 3	8, 02	1, 4	40
30	7 34 22, 5	79	0, 4	16 12 19, 1	20	0, 9	22 11 1, 5	7, 97	1, 4	30
40	7 37 30, 4	78	0, 4	16 14 51, 1	17	0, 9	22 12 21, 2	92	1, 4	20
50	7 40 38, 2	18, 77	0, 4	16 17 22, 8	15, 14	0, 9	22 13 40, 4	7, 86	1, 4	10
24 0	7 43 45, 9		0, 4	16 19 54, 2		0, 9	22 14 59, 0		1, 4	6 0
	XI^s +		+	X^s +		+	IX^s +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	III^{s} _	Diff. pro 1′	Var. saecul.	IV^{s} _	Diff. pro 1′	Var. saecul.	V^{s} _	Diff. pro 1′	Var. saecul.	Anom. med.
			—			—			—	
18° 0′	23° 38′ 23,″1	1,″50	1,″6	19° 4′ 41,″8	17,″43	1,″5	6° 29′ 59,″5	31,″44	0,″6	12° 0′
10	23 38 8, 1	57	1, 6	19 1 47, 5	52	1, 5	6 24 45, 1	48	0, 6	50
20	23 37 52, 4	64	1, 6	18 58 52, 3	62	1, 5	6 19 30, 3	52	0, 6	40
30	23 37 36, 0	73	1, 6	18 55 56, 1	71	1, 5	6 14 15, 1	57	0, 6	30
40	23 37 18, 7	80	1, 6	18 52 59, 0	81	1, 5	6 8 59, 4	61	0, 5	20
50	23 37 0, 7	88	1, 6	18 50 0, 9	17, 90	1, 5	6 3 43, 3	65	0, 5	10
19 0	23 36 41, 9	1, 96	1, 6	18 47 1, 9	18, 00	1, 5	5 58 26, 8	69	0, 5	11 0
10	23 36 22, 3	2, 03	1, 6	18 44 1, 9	10	1, 5	5 53 9, 9	74	0, 5	50
20	23 36 2, 0	11	1, 6	18 41 0, 9	19	1, 5	5 47 52, 5	77	0, 5	40
30	23 35 40, 9	19	1, 6	18 37 59, 0	28	1, 5	5 42 34, 8	81	0, 5	30
40	23 35 19, 0	27	1, 6	18 34 56, 2	38	1, 5	5 37 16, 7	85	0, 5	20
50	23 34 56, 3	35	1, 6	18 31 52, 4	47	1, 5	5 31 58, 2	89	0, 5	10
20 0	23 34 32, 8	42	1, 6	18 28 47, 7	57	1, 5	5 26 39, 3	92	0, 5	10 0
10	23 34 8, 6	50	1, 6	18 25 42, 0	66	1, 5	5 21 20, 1	31, 96	0, 5	50
20	23 33 43, 6	58	1, 6	18 22 35, 4	75	1, 5	5 16 0, 5	32, 00	0, 5	40
30	23 33 17, 8	66	1, 6	18 19 27, 9	85	1, 5	5 10 40, 5	04	0, 5	30
40	23 32 51, 2	74	1, 6	18 16 19, 4	18, 95	1, 5	5 5 20, 1	07	0, 5	20
50	23 32 23, 8	82	1, 6	18 13 9, 9	19, 04	1, 5	4 59 59, 4	10	0, 4	10
21 0	23 31 55, 6	90	1, 6	18 9 59, 5	13	1, 5	4 54 38, 4	14	0, 4	9 0
10	23 31 26, 6	2, 98	1, 6	18 6 48, 2	23	1, 5	4 49 17, 0	17	0, 4	50
20	23 30 56, 8	3, 06	1, 6	18 3 35, 9	32	1, 5	4 43 55, 3	20	0, 4	40
30	23 30 26, 2	14	1, 6	18 0 22, 7	41	1, 5	4 38 33, 3	24	0, 4	30
40	23 29 54, 8	21	1, 6	17 57 8, 6	51	1, 5	4 33 10, 9	26	0, 4	20
50	23 29 22, 7	30	1, 6	17 53 53, 5	60	1, 4	4 27 48, 3	30	0, 4	10
22 0	23 28 49, 7	38	1, 6	17 50 37, 5	70	1, 4	4 22 25, 3	33	0, 4	8 0
10	23 28 15, 9	46	1, 6	17 47 20, 5	79	1, 4	4 17 2, 0	36	0, 4	50
20	23 27 41, 3	54	1, 6	17 44 2, 6	89	1, 4	4 11 38, 4	38	0, 4	40
30	23 27 5, 9	62	1, 6	17 40 43, 7	19, 98	1, 4	4 6 14, 6	42	0, 4	30
40	23 26 29, 7	70	1, 6	17 37 23, 9	20, 07	1, 4	4 0 50, 4	44	0, 4	20
50	23 25 52, 7	78	1, 6	17 34 3, 2	16	1, 4	3 55 26, 0	47	0, 4	10
23 0	23 25 14, 9	87	1, 6	17 30 41, 6	26	1, 4	3 50 1, 3	50	0, 3	7 0
10	23 24 36, 2	3, 94	1, 7	17 27 19, 0	35	1, 4	3 44 36, 3	52	0, 3	50
20	23 23 56, 8	4, 03	1, 7	17 23 55, 5	45	1, 4	3 39 11, 1	55	0, 3	40
30	23 23 16, 5	11	1, 7	17 20 31, 0	54	1, 4	3 33 45, 6	58	0, 3	30
40	23 22 35, 4	19	1, 7	17 17 5, 6	63	1, 4	3 28 19, 8	60	0, 3	20
50	23 21 53, 5	4, 27	1, 7	17 13 39, 3	20, 72	1, 4	3 22 53, 8	32 62	0, 3	10
24 0	23 21 10, 8		1, 7	17 10 12, 1		1, 4	3 17 27, 6		0, 3	6 0
	VIII^{s} +		+	VII^{s} +		+	VI^{s} +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	O^s _	Diff. pro 1′	Var. saecul.	I^s _	Diff. pro 1′	Var. saecul.	II^s _	Diff. pro 1′	Var. saecul.	Anom. med.
			—			—			—	
24° 0′	7° 43′ 45,″9	18,″75	0,″4	16° 19′ 54,″2	15,″11	0,″9	22° 14′ 59,″0	7,″81	1,″4	6° 0′
10	7 46 53, 4	74	0, 4	16 22 25, 3	08	0, 9	22 16 17, 1	76	1, 4	50
20	7 50 0, 8	73	0, 4	16 24 56, 1	05	0, 9	22 17 34, 7	71	1, 4	40
30	7 53 8, 1	72	0, 4	16 27 26, 6	15, 03	0, 9	22 18 51, 8	65	1, 4	30
40	7 56 15, 3	71	0, 4	16 29 56, 9	14, 99	0, 9	22 20 8, 3	60	1, 4	20
50	7 59 22, 4	70	0, 4	16 32 26, 8	96	0, 9	22 21 24, 3	54	1, 4	10
25 0	8 2 29, 4	68	0, 4	16 34 56, 4	94	0, 9	22 22 39, 7	49	1, 4	5 0
10	8 5 36, 2	67	0, 4	16 37 25, 8	90	0, 9	22 23 54, 6	44	1, 4	50
20	8 8 42, 9	66	0, 4	16 39 54, 8	87	1, 0	22 25 9, 0	38	1, 4	40
30	8 11 49, 5	64	0, 4	16 42 23, 5	84	1, 0	22 26 22, 8	33	1, 4	30
40	8 14 55, 9	63	0, 4	16 44 51, 9	82	1, 0	22 27 36, 1	27	1, 4	20
50	8 18 2, 2	62	0, 4	16 47 20, 1	78	1, 0	22 28 48, 8	22	1, 4	10
26 0	8 21 8, 4	61	0, 5	16 49 47, 9	75	1, 0	22 30 1, 0	16	1, 4	4 0
10	8 24 14, 5	59	0, 5	16 52 15, 5	72	1, 0	22 31 12, 6	11	1, 4	50
20	8 27 20, 4	58	0, 5	16 54 42, 6	69	1, 0	22 32 23, 7	05	1, 4	40
30	8 30 26, 2	57	0, 5	16 57 9, 5	66	1, 0	22 33 34, 2	7, 00	1, 4	30
40	8 33 31, 9	55	0, 5	16 59 36, 1	63	1, 0	22 34 44, 2	6, 94	1, 4	20
50	8 36 37, 4	54	0, 5	17 2 2, 4	59	1, 0	22 35 53, 6	89	1, 4	10
27 0	8 39 42, 8	53	0, 5	17 4 28, 3	57	1, 0	22 37 2, 5	83	1, 4	3 0
10	8 42 48, 1	51	0, 5	17 6 54, 0	53	1, 0	22 38 10, 8	78	1, 4	50
20	8 45 53, 2	50	0, 5	17 9 19, 3	50	1, 0	22 39 18, 6	72	1, 4	40
30	8 48 58, 2	49	0, 5	17 11 44, 3	47	1, 0	22 40 25, 8	66	1, 4	30
40	8 52 3, 1	47	0, 5	17 14 9, 0	44	1, 0	22 41 32, 4	61	1, 4	20
50	8 55 7, 8	46	0, 5	17 16 33, 4	41	1, 0	22 42 38, 5	55	1, 4	10
28 0	8 58 12, 4	45	0, 5	17 18 57, 5	37	1, 0	22 43 44, 0	50	1, 4	2 0
10	9 1 16, 9	43	0, 5	17 21 21, 2	34	1, 0	22 44 49, 0	44	1, 4	50
20	9 4 21, 2	41	0, 5	17 23 44, 6	31	1, 0	22 45 53, 4	38	1, 4	40
30	9 7 25, 3	40	0, 5	17 26 7, 7	28	1, 0	22 46 57, 2	32	1, 4	30
40	9 10 29, 3	39	0, 5	17 28 30, 5	24	1, 0	22 48 0, 4	26	1, 4	20
50	9 13 33, 2	38	0, 5	17 30 52, 9	22	1, 0	22 49 3, 0	21	1, 4	10
29 0	9 16 37, 0	36	0, 5	17 33 15, 1	18	1, 0	22 50 5, 1	15	1, 4	1 0
10	9 19 40, 6	34	0, 5	17 35 36, 9	14	1, 0	22 51 6, 6	10	1, 4	50
20	9 22 44, 0	33	0, 5	17 37 58, 3	12	1, 0	22 52 7, 6	6, 03	1, 5	40
30	9 25 47, 3	32	0, 5	17 40 19, 5	08	1, 0	22 53 7, 9	5, 98	1, 5	30
40	9 28 50, 5	30	0, 5	17 42 40, 3	05	1, 0	22 54 7, 7	92	1, 5	20
50	9 31 53, 5	18, 28	0, 5	17 45 0, 8	14, 01	1, 0	22 55 6, 9	5, 86	1, 5	10
30 0	9 34 56, 3		0, 5	17 47 20, 9		1, 0	22 56 5, 5		1, 5	0 0
	XI^s +		+	X^s +		+	IX^s +		+	

TABULA VI.

Aequatio centri Mercurii in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media, seu longitudo media ☿ — Aphelium.

Anom. med.	III^{s} _	Diff. pro 1′	Var. saecul	IV^{s} _	Diff. pro 1′	Var. saecul.	V^{s} _	Diff. pro 1′	Var. saecul	Anom. med.
			—			—			—	
24° 0′	23° 21′ 10,″8	4,″36	1,″7	17° 10′ 12,″1	20,″82	1,″4	3° 17′ 27,″6	32,″64	0,″3	6° 0′
10	23 20 27, 2	44	1, 7	17 6 43, 9	20, 91	1, 4	3 12 1, 2	67	0, 3	50
20	23 19 42, 8	52	1, 7	17 3 14, 8	21, 00	1, 4	3 6 34, 5	69	0, 3	40
30	23 18 57, 6	60	1, 7	16 59 44, 8	09	1, 4	3 1 7, 6	71	0, 3	30
40	23 18 11, 6	68	1, 7	16 56 13, 9	19	1, 4	2 55 40, 5	73	0, 3	20
50	23 17 24, 8	77	1, 7	16 52 42, 0	28	1, 4	2 50 13, 2	75	0, 3	10
25 0	23 16 37, 1	86	1, 7	16 49 9, 2	37	1, 4	2 44 45, 7	77	0, 2	5 0
10	23 15 48, 5	4, 93	1, 7	16 45 35, 5	46	1, 4	2 39 18, 0	79	0, 2	50
20	23 14 59, 2	5, 02	1, 7	16 42 0, 9	55	1, 4	2 33 50, 1	80	0, 2	40
30	23 14 9, 0	10	1, 7	16 38 25, 4	65	1, 4	2 28 22, 1	82	0, 2	30
40	23 13 18, 0	19	1, 7	16 34 48, 9	73	1, 4	2 22 53, 9	84	0, 2	20
50	23 12 26, 1	27	1, 7	16 31 11, 6	83	1, 4	2 17 25, 5	86	0, 2	10
26 0	23 11 33, 4	36	1, 7	16 27 33, 3	21, 92	1, 4	2 11 56, 9	87	0, 2	4 0
10	23 10 39, 8	44	1, 7	16 23 54, 1	22, 01	1, 4	2 6 28, 2	89	0, 2	50
20	23 9 45, 4	52	1, 7	16 20 14, 0	10	1, 3	2 0 59, 3	90	0, 2	40
30	23 8 50, 2	61	1, 7	16 16 33, 0	19	1, 3	1 55 30, 3	91	0, 2	30
40	23 7 54, 1	69	1, 7	16 12 51, 1	29	1, 3	1 50 1, 2	92	0, 2	20
50	23 6 57, 2	78	1, 7	16 9 8, 2	37	1, 3	1 44 32, 0	94	0, 2	10
27 0	23 5 59, 4	86	1, 7	16 5 24, 5	46	1, 3	1 39 2, 6	95	0, 1	3 0
10	23 5 0, 8	5, 95	1, 7	16 1 39, 9	55	1, 3	1 33 33, 1	97	0, 1	50
20	23 4 1, 3	6, 03	1, 7	15 57 54, 4	64	1, 3	1 28 3, 4	97	0, 1	40
30	23 3 1, 0	12	1, 7	15 54 8, 0	74	1, 3	1 22 33, 7	98	0, 1	30
40	23 1 59, 8	20	1, 7	15 50 20, 6	82	1, 3	1 17 3, 9	32, 99	0, 1	20
50	23 0 57, 8	29	1, 7	15 46 32, 4	22, 91	1, 3	1 11 34, 0	33, 00	0, 1	10
28 0	22 59 54, 9	37	1, 7	15 42 43, 3	23, 00	1, 3	1 6 4, 0	00	0, 1	2 0
10	22 58 51, 2	46	1, 7	15 38 53, 3	09	1, 3	1 0 34, 0	02	0, 1	50
20	22 57 46, 6	55	1, 7	15 35 2, 4	18	1, 3	0 55 3, 8	02	0, 1	40
30	22 56 41, 1	64	1, 7	15 31 10, 6	26	1, 3	0 49 33, 6	02	0, 1	30
40	22 55 34, 7	72	1, 7	15 27 18, 0	36	1, 3	0 44 3, 4	03	0, 1	20
50	22 54 27, 5	80	1, 7	15 23 24, 4	44	1, 3	0 38 33, 1	04	0, 1	10
29 0	22 53 19, 5	90	1, 7	15 19 30, 0	53	1, 3	0 33 2, 7	04	0, 0	1 0
10	22 52 10, 5	6, 98	1, 7	15 15 34, 7	62	1, 3	0 27 32, 3	04	0, 0	50
20	22 51 0, 7	7, 06	1, 7	15 11 38, 5	71	1, 3	0 22 1, 9	05	0, 0	40
30	22 49 50, 1	16	1, 7	15 7 41, 4	79	1, 3	0 16 31, 4	04	0, 0	30
40	22 48 38, 5	24	1, 7	15 3 43, 5	88	1, 3	0 11 1, 0	05	0, 0	20
50	22 47 26, 1	7, 33	1, 7	14 59 44, 7	23, 97	1, 3	0 5 30, 5	33, 05	0, 0	10
30 0	22 46 12, 8			14 55 45, 0			0 0 0, 0			0 0
	VIII^{s} +		+	VII^{s} +		+	VI^{s} +		+	

Tabulae perturbationum in longitudine.

TABULA VII.

Arg. II. (☿ − ♀)			Arg. II. (☿ − ♀)			Arg. II. (☿ − ♀)			Arg. II. (☿ − ♀)		
N.	Aeq.	Diff.	N.	Aeq.	Diff.	N	Aeq.	Diff.	N.	Aeq.	Diff.
0	3,″0	+ 0,″3	132	2,″1	+ 0,″2	264	2,″3	− 0,″2	396	3,″8	− 0,″4
3	3, 3	0, 2	135	2, 3	0, 2	267	2, 1	− 0, 1	399	3, 4	0, 4
6	3, 5	0, 2	138	2, 5	0, 2	260	2, 0	− 0, 0	402	3, 0	0, 3
9	3, 7	0, 2	141	2, 7	0, 3	273	2, 0	+ 0, 1	405	2, 7	0, 3
12	3, 9	+ 0, 1	144	3, 0	0, 3	276	2, 1	0, 1	408	2, 4	0, 2
15	4, 0	0, 0	147	3, 3	0, 2	279	2, 2	0, 2	411	2, 2	− 0, 1
18	4, 0	− 0, 1	150	3, 5	0, 2	282	2, 4	0, 2	414	2, 1	0, 0
21	3, 9	0, 2	153	3, 7	0, 2	285	2, 6	0, 3	417	2, 1	0, 0
24	3, 7	0, 2	156	3, 9	+ 0, 1	288	2, 9	0, 3	420	2, 1	+ 0, 1
27	3, 5	0, 3	159	4, 0	0, 0	291	3, 2	0, 2	423	2, 2	0, 2
30	3, 2	0, 3	162	4, 0	− 0, 1	294	3, 4	0, 2	426	2, 4	0, 2
33	2, 9	0, 4	165	3, 9	0, 2	297	3, 6	0, 2	429	2, 6	0, 2
36	2, 5	0, 4	168	3, 7	0, 2	300	3, 8	0, 1	432	2, 8	0, 2
39	2, 1	0, 4	171	3, 5	0, 3	303	3, 9	+ 0, 1	435	3, 0	0, 3
42	1, 7	0, 4	174	3, 2	0, 3	306	4, 0	− 0, 1	438	3, 3	0, 3
45	1, 3	0, 3	177	2, 9	0, 4	309	3, 9	0, 2	441	3, 6	0, 2
48	1, 0	− 0, 2	180	2, 5	0, 4	312	3, 7	0, 2	444	3, 8	+ 0, 1
51	0, 8	0, 0	183	2, 1	0, 4	315	3, 5	0, 2	447	3, 9	0, 0
54	0, 8	+ 0, 1	186	1, 7	0, 3	318	3, 3	0, 3	450	3, 9	0, 0
57	0, 9	0, 2	189	1, 4	0, 3	321	3, 0	0, 3	453	3, 9	− 0, 1
60	1, 1	0, 3	192	1, 1	0, 2	324	2, 7	0, 4	456	3, 8	0, 2
63	1, 4	0, 5	195	0, 9	− 0, 1	327	2, 3	0, 5	459	3, 6	0, 2
66	1, 9	0, 5	198	0, 8	+ 0, 1	330	1, 8	0, 4	462	3, 4	0, 3
69	2, 4	0, 6	201	0, 9	0, 2	333	1, 4	0, 3	465	3, 1	0, 4
72	3, 0	0, 5	204	1, 1	0, 3	336	1, 1	0, 2	468	2, 7	0, 4
75	3, 5	0, 5	207	1, 4	0, 4	339	0, 9	− 0, 1	471	2, 3	0, 4
78	4, 0	0, 4	210	1, 8	0, 5	342	0, 8	+ 0, 1	474	1, 9	0, 4
81	4, 4	0, 3	213	2, 3	0, 5	345	0, 9	0, 2	477	1, 5	0, 3
84	4, 7	0, 3	216	2, 8	0, 6	348	1, 1	0, 3	480	1, 2	0, 2
87	5, 0	+ 0, 2	219	3, 4	0, 5	351	1, 4	0, 4	483	1, 0	− 0, 1
90	5, 2	0, 0	222	3, 9	0, 5	354	1, 8	0, 4	486	0, 9	0, 0
93	5, 2	− 0, 2	225	4, 4	0, 4	357	2, 2	0, 5	489	0, 9	+ 0, 1
96	5, 0	0, 3	228	4, 8	0, 3	360	2, 7	0, 6	492	1, 0	0, 2
99	4, 7	0, 3	231	5, 1	+ 0, 1	363	3, 3	0, 5	495	1, 2	0, 4
102	4, 4	0, 3	234	5, 2	0, 0	366	3, 8	0, 5	498	1, 6	0, 5
105	4, 1	0, 3	237	5, 2	− 0, 1	369	4, 3	0, 4	501	2, 1	0, 5
108	3, 8	0, 4	240	5, 1	0, 2	372	4, 7	0, 3	504	2, 6	0, 6
111	3, 4	0, 4	243	4, 9	0, 3	375	5, 0	+ 0, 2	507	3, 2	0, 5
114	3, 0	0, 4	246	4, 6	0, 4	378	5, 2	0, 0	510	3, 7	0, 5
117	2, 6	0, 3	249	4, 2	0, 5	381	5, 2	− 0, 1	513	4, 2	0, 4
120	2, 3	0, 2	252	3, 7	0, 4	384	5, 1	0, 2	516	4, 6	0, 3
123	2, 1	− 0, 1	255	3, 3	0, 4	387	4, 9	0, 3	519	4, 9	0, 2
126	2, 0	0, 0	258	2, 9	0, 3	390	4, 6	0, 4	522	5, 1	+ 0, 1
129	2, 0	+ 0, 1	261	2, 6	− 0, 3	393	4, 2	− 0, 4	525	5, 2	0, 0
132	2, 1		264	2, 3		396	3, 8		528	5, 2	

Const. + 3,″

TAB. VIII.

Arg. III. (☿ − ♃)		
N.	Aeq.	Diff.
0	1,″0	− 0,″1
5	0, 9	− 0, 1
10	0, 8	− 0, 2
15	0, 6	− 0, 1
20	0, 5	− 0, 1
25	0, 4	− 0, 0
30	0, 4	+ 0, 1
35	0, 5	+ 0, 2
40	0, 7	+ 0, 3
45	1, 0	+ 0, 3
50	1, 3	+ 0, 2
55	1, 5	+ 0, 1
60	1, 6	+ 0, 1
65	1, 7	− 0, 2
70	1, 5	− 0, 1
75	1, 4	− 0, 2
80	1, 2	− 0, 1
85	1, 1	− 0, 1
90	1, 0	− 0, 1
95	0, 9	− 0, 2
100	0, 7	− 0, 1
105	0, 6	− 0, 1
110	0, 5	− 0, 1
115	0, 4	− 0, 0
120	0, 4	+ 0, 1
125	0, 5	+ 0, 2
130	0, 7	+ 0, 3
135	1, 0	+ 0, 3
140	1, 3	+ 0, 2
145	1, 5	+ 0, 1
150	1, 6	+ 0, 0
155	1, 6	− 0, 1
160	1, 5	− 0, 1
165	1, 4	− 0, 2
170	1, 2	− 0, 1
175	1, 1	− 0, 1
180	1, 0	− 0, 1
185	0, 9	− 0, 2
190	0, 7	− 0, 1
195	0, 6	− 0, 1
200	0, 5	− 0, 1
205	0, 4	− 0, 0
210	0, 4	+ 0, 1
215	0, 5	+ 0, 2
220	0, 7	+ 0, 3
225	1, 0	+ 0, 3
230	1, 3	+ 0, 2
235	1, 5	+ 0, 1
240	1, 6	+ 0, 0
245	1, 6	

Const. + 1,″

Tabulae perturbationum in longitudine.

TAB. VIII.

Arg. III. (☿ − ♃)

N.	Aeq.	Diff.
245	1,"6	− 0,"1
250	1, 5	− 0, 1
255	1, 4	− 0, 2
260	1, 2	− 0, 1
265	1, 1	− 0, 1
270	1, 0	− 0, 1
275	0, 9	− 0, 2
280	0, 7	− 0, 1
285	0, 6	− 0, 1
290	0, 5	− 0, 1
295	0, 4	− 0, 0
300	0, 4	+ 0, 1
305	0, 5	+ 0, 2
310	0, 7	+ 0, 3
315	1, 0	+ 0, 3
320	1, 3	+ 0, 2
325	1, 5	+ 0, 1
330	1, 6	+ 0, 0
335	1, 6	− 0, 1
340	1, 5	− 0, 1
345	1, 4	− 0, 2
350	1, 2	− 0, 1
355	1, 1	− 0, 1
360	1, 0	− 0, 2
365	0, 8	− 0, 1
370	0, 7	− 0, 1
375	0, 6	− 0, 1
380	0, 5	− 0, 1
385	0, 4	− 0, 0
390	0, 4	+ 0, 1
395	0, 5	+ 0, 2
400	0, 7	+ 0, 3
405	1, 0	+ 0, 3
410	1, 3	+ 0, 2
415	1, 5	+ 0, 1
420	1, 6	+ 0, 0
425	1, 6	− 0, 1
430	1, 5	− 0, 1
435	1, 4	− 0, 2
440	1, 2	− 0, 1
445	1, 1	− 0, 1
450	1, 0	− 0, 2
455	0, 8	− 0, 1
460	0, 7	− 0, 2
465	0, 5	

Const. + 1,"

TABULA IX.

Arg. IV. (☿ − 2♀)

N.	Aeq.	Diff.
0	9,"2	+ 0,"0
8	9, 3	0, 0
16	9, 3	0, 0
24	9, 3	− 0, 1
32	9, 2	− 0, 1
40	9, 1	− 0, 2
48	8, 9	− 0, 3
56	8, 6	− 0, 3
64	8, 3	− 0, 4
72	7, 9	− 0, 4
80	7, 5	− 0, 5
88	7, 0	− 0, 5
96	6, 5	− 0, 5
104	6, 0	− 0, 5
112	5, 5	− 0, 5
120	5, 0	− 0, 6
128	4, 4	− 0, 5
136	3, 9	− 0, 6
144	3, 3	− 0, 5
152	2, 8	− 0, 4
160	2, 4	− 0, 4
168	2, 0	− 0, 4
176	1, 6	− 0, 3
184	1, 3	− 0, 2
192	1, 1	− 0, 2
200	0, 9	− 0, 2
208	0, 7	− 0, 0
216	0, 7	− 0, 1
224	0, 6	+ 0, 1
232	0, 7	+ 0, 2
240	0, 9	+ 0, 2
248	1, 1	+ 0, 2
256	1, 3	+ 0, 3
264	1, 6	+ 0, 4
272	2, 0	+ 0, 4
280	2, 4	+ 0, 4
288	2, 8	+ 0, 5
296	3, 3	+ 0, 5
304	3, 8	+ 0, 6
312	4, 4	+ 0, 5
320	4, 9	+ 0, 5
328	5, 4	+ 0, 6
336	6, 0	+ 0, 5
344	6, 5	+ 0, 5
352	7, 0	+ 0, 4
360	7, 4	+ 0, 5
368	7, 9	+ 0, 4
376	8, 3	+ 0, 3
384	8, 6	+ 0, 3
392	8, 9	

Arg. IV. (☿ − 2♀)

N.	Aeq.	Diff.
392	8,"9	+ 0,"2
400	9, 1	+ 0, 1
408	9, 2	+ 0, 1
416	9, 3	+ 0, 0
424	9, 3	+ 0, 0
432	9, 3	− 0, 1
440	9, 2	− 0, 2
448	9, 0	− 0, 2
456	8, 8	− 0, 3
464	8, 5	− 0, 3
472	8, 2	− 0, 4
480	7, 8	− 0, 5
488	7, 3	− 0, 4
496	6, 9	− 0, 5
504	6, 4	− 0, 6
512	5, 8	− 0, 5
520	5, 3	− 0, 6
528	4, 7	− 0, 5
536	4, 2	− 0, 5
544	3, 7	− 0, 5
552	3, 2	− 0, 5
560	2, 7	− 0, 4
568	2, 3	− 0, 4
576	1, 9	− 0, 4
584	1, 5	− 0, 3
592	1, 2	− 0, 2
600	1, 0	− 0, 2
608	0, 8	− 0, 1
616	0, 7	− 0, 1
624	0, 6	+ 0, 1
632	0, 7	+ 0, 1
640	0, 8	+ 0, 1
648	0, 9	+ 0, 2
656	1, 1	+ 0, 3
664	1, 4	+ 0, 3
672	1, 7	+ 0, 4
680	2, 1	+ 0, 4
688	2, 5	+ 0, 5
696	3, 0	+ 0, 5
704	3, 5	+ 0, 5
712	4, 0	+ 0, 6
720	4, 6	+ 0, 5
728	5, 1	+ 0, 5
736	5, 6	+ 0, 5
744	6, 1	+ 0, 5
752	6, 6	+ 0, 5
760	7, 1	+ 0, 5
768	7, 6	+ 0, 4
776	8, 0	

Const. + 5,"

TABULA X.

Arg. V. (2☿ − 3♀)

N.	Aeq.	Diff.
0	3,"7	+ 0,"1
5	3, 8	− 0, 1
10	3, 7	− 0, 3
15	3, 4	− 0, 3
20	3, 1	− 0, 4
25	2, 7	− 0, 5
30	2, 2	− 0, 5
35	1, 7	− 0, 5
40	1, 2	− 0, 4
45	0, 8	− 0, 3
50	0, 5	− 0, 3
55	0, 2	+ 0, 1
60	0, 3	+ 0, 1
65	0, 4	+ 0, 2
70	0, 6	+ 0, 3
75	0, 9	+ 0, 5
80	1, 4	+ 0, 6
85	2, 0	+ 0, 5
90	2, 5	+ 0, 5
95	3, 0	+ 0, 3
100	3, 3	+ 0, 2
105	3, 5	+ 0, 2
110	3, 7	+ 0, 1
115	3, 8	− 0, 1
120	3, 7	− 0, 3
125	3, 4	− 0, 5
130	2, 9	− 0, 5
135	2, 4	− 0, 5
140	1, 9	− 0, 5
145	1, 4	− 0, 5
150	0, 9	− 0, 4
155	0, 5	− 0, 2
160	0, 3	− 0, 1
165	0, 2	+ 0, 1
170	0, 3	+ 0, 3
175	0, 6	+ 0, 3
180	0, 9	+ 0, 4
185	1, 3	+ 0, 5
190	1, 8	+ 0, 5
195	2, 3	+ 0, 5
200	2, 8	+ 0, 4
205	3, 2	+ 0, 3
210	3, 5	+ 0, 2
215	3, 7	+ 0, 1
220	3, 8	− 0, 1
225	3, 7	− 0, 3
230	3, 4	− 0, 4
235	3, 0	− 0, 5
240	2, 5	− 0, 5
245	2, 0	

Arg. V. (2☿ − 3♀)

N.	Aeq.	Diff.
245	2,"0	− 0,"5
250	1, 5	− 0, 5
255	1, 0	− 0, 4
260	0, 6	− 0, 3
265	0, 3	− 0, 1
270	0, 2	0, 0
275	0, 2	+ 0, 2
280	0, 4	+ 0, 3
285	0, 7	+ 0, 5
290	1, 2	+ 0, 5
295	1, 7	+ 0, 5
300	2, 2	+ 0, 5
305	2, 7	+ 0, 4
310	3, 1	+ 0, 3
315	3, 4	+ 0, 2
320	3, 6	+ 0, 1
325	3, 7	− 0, 1
330	3, 6	− 0, 2
335	3, 4	− 0, 3
340	3, 1	− 0, 4
345	2, 7	− 0, 5
350	2, 2	− 0, 5
355	1, 7	− 0, 5
360	1, 2	− 0, 4
365	0, 8	− 0, 3
370	0, 5	− 0, 2
375	0, 3	− 0, 0
380	0, 3	+ 0, 1
385	0, 4	+ 0, 2
390	0, 6	+ 0, 3
395	0, 9	+ 0, 4
400	1, 3	+ 0, 5
405	1, 8	+ 0, 5
410	2, 3	+ 0, 5
415	2, 8	+ 0, 5
420	3, 3	+ 0, 3
425	3, 6	+ 0, 2
430	3, 8	− 0, 1
435	3, 7	− 0, 2
440	3, 5	− 0, 3
445	3, 2	− 0, 4
450	2, 8	− 0, 5
455	2, 3	− 0, 5
460	1, 8	− 0, 5
465	1, 3	− 0, 4
470	0, 9	− 0, 3
475	0, 6	− 0, 2
480	0, 4	− 0, 1
485	0, 3	− 0, 0
490	0, 3	

Const. + 2,"

Tabulae perturbationum in longitudine.

TAB. XI.

Arg. VI. (♃)

N.	Aeq.	Diff.
0	0,"9	— 0,"1
100	0, 8	— 0, 0
200	0, 8	— 0, 1
300	0, 7	— 0, 1
400	0, 6	— 0, 0
500	0, 6	— 0, 1
600	0, 5	— 0, 0
700	0, 5	0, 0
800	0, 5	0, 0
900	0, 5	0, 0
1000	0, 5	0, 0
1100	0, 5	0, 0
1200	0, 5	0, 0
1300	0, 5	+ 0, 1
1400	0, 6	+ 0, 1
1500	0, 7	0, 0
1600	0, 7	+ 0, 1
1700	0, 8	0, 0
1800	0, 8	+ 0, 1
1900	0, 9	+ 0, 1
2000	1, 0	0, 0
2100	1, 0	+ 0, 1
2200	1, 1	+ 0, 1
2300	1, 2	+ 0, 1
2400	1, 3	0, 0
2500	1, 3	+ 0, 1
2600	1, 4	+ 0, 1
2700	1, 5	0, 0
2800	1, 5	0, 0
2900	1, 5	0, 0
3000	1, 5	0, 0
3100	1, 5	0, 0
3200	1, 5	0, 0
3300	1, 5	0, 0
3400	1, 5	0, 0
3500	1, 5	— 0, 1
3600	1, 4	— 0, 1
3700	1, 3	0, 0
3800	1, 3	— 0, 1
3900	1, 2	— 0, 1
4000	1, 1	0, 0
4100	1, 1	— 0, 1
4200	1, 0	— 0, 1
4300	0, 9	0, 0
4400	0, 9	— 0, 1
4500	0, 8	— 0, 1
4600	0, 7	— 0, 1
4700	0, 6	

Const. + 1",

TABULA XII.

Arg. VII. (☿ − 2♃)

N.	Aeq.	Diff.
0	7,"2	+ 0,"1
3	7, 3	0, 0
6	7, 3	— 0, 2
9	7, 1	— 0, 3
12	6, 8	— 0, 4
15	6, 4	— 0, 5
18	5, 9	— 0, 6
21	5, 3	— 0, 7
24	4, 6	— 0, 6
27	4, 0	— 0, 7
30	3, 3	— 0, 6
33	2, 7	— 0, 6
36	2, 1	— 0, 5
39	1, 6	— 0, 4
42	1, 2	— 0, 3
45	0, 9	— 0, 1
48	0, 8	— 0, 1
51	0, 7	+ 0, 2
54	0, 9	+ 0, 2
57	1, 1	+ 0, 4
60	1, 5	+ 0, 5
63	2, 0	+ 0, 6
66	2, 6	+ 0, 6
69	3, 2	+ 0, 7
72	3, 9	+ 0, 6
75	4, 5	+ 0, 7
78	5, 2	+ 0, 6
81	5, 8	+ 0, 5
84	6, 3	+ 0, 4
87	6, 7	+ 0, 3
90	7, 0	+ 0, 2
93	7, 2	+ 0, 1
96	7, 3	— 0, 1
99	7, 2	— 0, 2
102	7, 0	— 0, 4
105	6, 6	— 0, 4
108	6, 2	— 0, 6
111	5, 6	— 0, 6
114	5, 0	— 0, 6
117	4, 4	— 0, 7
120	3, 7	— 0, 7
123	3, 0	— 0, 6
126	2, 4	— 0, 5
129	1, 9	— 0, 5
132	1, 4	— 0, 4
135	1, 0	— 0, 2
138	0, 8	— 0, 1
141	0, 7	+ 0, 1
144	0, 8	+ 0, 2
147	1, 0	+ 0, 3
150	1, 3	

Arg. VII. (☿ − 2♃)

N.	Aeq.	Diff.
153	1,"7	+ 0,"5
156	2, 2	+ 0, 6
159	2, 8	+ 0, 6
162	3, 4	+ 0, 7
165	4, 1	+ 0, 7
168	4, 8	+ 0, 6
171	5, 4	+ 0, 6
174	6, 0	+ 0, 5
177	6, 5	+ 0, 4
180	6, 9	+ 0, 3
183	7, 2	+ 0, 1
186	7, 3	0, 0
189	7, 3	— 0, 2
192	7, 1	— 0, 3
195	6, 8	— 0, 4
198	6, 4	— 0, 5
201	5, 9	— 0, 5
204	5, 4	— 0, 6
207	4, 8	— 0, 7
210	4, 1	— 0, 7
213	3, 4	— 0, 7
216	2, 7	— 0, 6
219	2, 1	— 0, 5
222	1, 6	— 0, 4
225	1, 2	— 0, 3
228	0, 9	— 0, 1
231	0, 8	— 0, 1
234	0, 7	+ 0, 1
237	0, 8	+ 0, 2
240	1, 0	+ 0, 4
243	1, 4	+ 0, 5
246	1, 9	+ 0, 6
249	2, 5	+ 0, 6
252	3, 1	+ 0, 7
255	3, 8	+ 0, 6
258	4, 4	+ 0, 7
261	5, 1	+ 0, 6
264	5, 7	+ 0, 5
267	6, 2	+ 0, 5
270	6, 7	+ 0, 3
273	7, 0	+ 0, 2
276	7, 2	+ 0, 1
279	7, 3	— 0, 1
282	7, 2	— 0, 2
285	7, 0	— 0, 3
288	6, 7	— 0, 5
291	6, 2	— 0, 6
294	5, 6	— 0, 6
297	5, 0	— 0, 6
200	4, 4	— 0, 6
203	3, 8	

Arg. VII. (☿ − 2♃)

N.	Aeq.	Diff.
306	3,"1	— 0,"6
309	2, 5	— 0, 6
312	1, 9	— 0, 5
315	1, 4	— 0, 3
318	1, 1	— 0, 2
321	0, 9	— 0, 1
324	0, 8	0, 0
327	0, 8	+ 0, 1
330	0, 9	+ 0, 3
333	1, 2	+ 0, 4
336	1, 6	+ 0, 5
339	2, 1	+ 0, 6
342	2, 7	+ 0, 7
345	3, 4	+ 0, 7
348	4, 1	+ 0, 6
351	4, 7	+ 0, 6
354	5, 3	+ 0, 6
357	5, 9	+ 0, 5
360	6, 4	+ 0, 4
363	6, 8	+ 0, 3
366	7, 1	+ 0, 1
369	7, 2	— 0, 0
372	7, 2	— 0, 1
375	7, 1	— 0, 2
378	6, 9	— 0, 4
381	6, 5	— 0, 5
384	6, 0	— 0, 6
387	5, 4	— 0, 6
390	4, 8	— 0, 7
393	4, 1	— 0, 6
396	3, 5	— 0, 7
399	2, 8	— 0, 6
402	2, 2	— 0, 5
405	1, 7	— 0, 4
408	1, 3	— 0, 3
411	1, 0	— 0, 2
414	0, 8	— 0, 1
417	0, 7	+ 0, 0
420	0, 8	+ 0, 2
423	1, 0	+ 0, 3
426	1, 3	+ 0, 5
429	1, 8	+ 0, 6
432	2, 4	+ 0, 6
435	3, 0	+ 0, 7
438	3, 7	+ 0, 6
441	4, 3	+ 0, 7
444	5, 0	+ 0, 6
447	5, 6	+ 0, 6
450	6, 2	+ 0, 5
453	6, 7	+ 0, 3
456	7, 0	

Const. + 4,"

TAB. XIII.

Arg. VIII. (3☿ − 5♀)

N.	Aeq.	Diff.
0	1,"7	+ 0,"6
5	2, 3	+ 0, 7
10	3, 0	+ 0, 6
15	3, 6	+ 0, 6
20	4, 2	+ 0, 5
25	4, 7	+ 0, 2
30	4, 9	— 0, 1
35	4, 8	— 0, 4
40	4, 4	— 0, 5
45	3, 9	— 0, 6
50	3, 3	— 0, 7
55	2, 6	— 0, 6
60	2, 0	— 0, 5
65	1, 5	— 0, 3
70	1, 2	— 0, 1
75	1, 1	+ 0, 3
80	1, 4	+ 0, 4
85	1, 8	+ 0, 5
90	2, 3	+ 0, 6
95	2, 9	+ 0, 7
100	3, 6	+ 0, 6
105	4, 2	+ 0, 4
110	4, 6	+ 0, 2
115	4, 8	— 0, 1
120	4, 7	— 0, 3
125	4, 4	— 0, 5
130	3, 9	— 0, 7
135	3, 2	— 0, 7
140	2, 5	— 0, 6
145	1, 9	— 0, 4
150	1, 5	— 0, 2
155	1, 3	— 0, 1
160	1, 2	+ 0, 2
165	1, 4	+ 0, 5
170	1, 9	+ 0, 6
175	2, 5	+ 0, 6
180	3, 1	+ 0, 6
185	3, 7	+ 0, 6
190	4, 3	+ 0, 4
195	4, 7	+ 0, 2
200	4, 9	— 0, 2
205	4, 7	— 0, 4
210	4, 3	— 0, 5
215	3, 8	— 0, 6
220	3, 2	— 0, 7
225	2, 5	— 0, 6
230	1, 9	— 0, 5
235	1, 4	— 0, 2
240	1, 2	— 0, 0
245	1, 2	

Const. + 3,"

Tabulae perturbationum in longitudine.

TAB. XIII.

Arg. VIII. (3☿−5♀)

N.	Aeq.	Diff.
245	1,″2	+0,″3
250	1, 5	+0, 5
255	2, 0	+0, 6
260	2, 6	+0, 6
265	3, 2	+0, 6
270	3, 8	+0, 5
275	4, 3	+0, 3
280	4, 6	+0, 2
285	4, 8	−0, 1
290	4, 7	−0, 4
295	4, 3	−0, 6
300	3, 7	−0, 7
305	3, 0	−0, 6
310	2, 4	−0, 6
315	1, 8	−0, 4
320	1, 4	−0, 2
325	1, 2	0, 0
330	1, 2	+0, 3
335	1, 5	+0, 5
340	2, 0	+0, 6
345	2, 6	+0, 7
350	3, 3	+0, 6
355	3, 9	+0, 5
360	4, 4	+0, 3
365	4, 7	+0, 1
370	4, 8	−0, 1
375	4, 7	−0, 3
380	4, 4	−0, 6
385	3, 8	−0, 7
390	3, 1	−0, 7
395	2, 4	−0, 5
400	1, 9	−0, 4
405	1, 5	−0, 3
410	1, 2	−0, 0
415	1, 2	+0, 3
420	1, 5	+0, 5
425	2, 0	+0, 7
430	2, 7	+0, 7
435	3, 4	+0, 6
440	4, 0	+0, 5
445	4, 5	+0, 3
450	4, 8	+0, 0
455	4, 8	−0, 2
460	4, 6	−0, 3
465	4, 3	

Const. +3,″

TAB. XIV.

Arg. XI. (♂♀ − ☿)

N.	Aeq.	Diff.
0	1,″4	+0,″1
20	1, 5	+0, 1
40	1, 6	0, 0
60	1, 6	0, 0
80	1, 6	0, 0
100	1, 6	−0, 1
120	1, 5	−0, 1
140	1, 4	−0, 2
160	1, 2	−0, 1
180	1, 1	0, 0
200	1, 0	−0, 2
220	0, 8	−0, 1
240	0, 7	−0, 2
260	0, 5	−0, 1
280	0, 4	0, 0
300	0, 4	−0, 1
320	0, 3	+0, 1
340	0, 4	0, 0
360	0, 4	+0, 1
380	0, 5	+0, 1
400	0, 6	+0, 2
420	0, 8	+0, 2
440	1, 0	+0, 1
460	1, 1	+0, 2
480	1, 3	+0, 1
500	1, 4	+0, 1
520	1, 5	+0, 1
540	1, 6	0, 0
560	1, 6	0, 0
580	1, 6	0, 0
600	1, 6	0, 0
620	1, 6	−0, 1
640	1, 5	−0, 1
660	1, 4	−0, 2
680	1, 2	−0, 2
700	1, 0	−0, 2
720	0, 8	−0, 1
740	0, 7	−0, 1
760	0, 6	−0, 1
780	0, 5	−0, 2
800	0, 3	0, 0
820	0, 3	+0, 1
840	0, 4	0, 0
860	0, 4	+0, 1
880	0, 5	

Const. +1,″

TABULA XV.

Arg. X. (2☿ − 5♀)

N.	Aeq.	Diff.
0	5,″4	−0,″6
25	4, 8	−0, 6
50	4, 2	−0, 5
75	3, 7	−0, 5
100	3, 2	−0, 4
125	2, 8	−0, 4
150	2, 4	−0, 4
175	2, 0	−0, 3
200	1, 7	−0, 3
225	1, 4	−0, 2
250	1, 2	−0, 2
275	1, 0	−0, 1
300	0, 9	0, 0
325	0, 9	−0, 1
350	0, 8	+0, 1
375	0, 9	+0, 1
400	1, 0	+0, 1
425	1, 1	+0, 2
450	1, 3	+0, 3
475	1, 6	+0, 2
500	1, 8	+0, 4
525	2, 2	+0, 4
550	2, 6	+0, 4
575	3, 0	+0, 5
600	3, 5	+0, 5
625	4, 0	+0, 5
650	4, 5	+0, 6
675	5, 1	+0, 6
700	5, 7	+0, 6
725	6, 3	+0, 7
750	7, 0	+0, 6
775	7, 6	+0, 7
800	8, 3	+0, 7
825	9, 0	+0, 7
850	9, 7	+0, 7
875	10, 4	+0, 7
900	11, 1	+0, 7
925	11, 8	+0, 6
950	12, 4	+0, 7
975	13, 1	+0, 6
1000	13, 7	+0, 7
1025	14, 4	+0, 6
1050	15, 0	+0, 5
1075	15, 5	+0, 6
1100	16, 1	+0, 5
1125	16, 6	+0, 4
1150	17, 0	+0, 5
1175	17, 5	+0, 3
1200	17, 8	+0, 4
1225	18, 2	

Arg. X. (2☿ − 5♀)

N.	Aeq.	Diff.
1225	18,″2	+0,″3
1250	18, 5	+0, 2
1275	18, 7	+0, 2
1300	18, 9	+0, 2
1325	19, 1	+0, 1
1350	19, 2	0, 0
1375	19, 2	−0, 1
1400	19, 1	0, 0
1425	19, 1	−0, 1
1450	19, 0	−0, 2
1475	18, 8	−0, 2
1500	18, 6	−0, 3
1525	18, 3	−0, 3
1550	18, 0	−0, 4
1575	17, 6	−0, 4
1600	17, 2	−0, 5
1625	16, 7	−0, 5
1650	16, 2	−0, 5
1675	15, 7	−0, 5
1700	15, 2	−0, 6
1725	14, 6	−0, 7
1750	13, 9	−0, 6
1775	13, 3	−0, 7
1800	12, 6	−0, 6
1825	12, 0	−0, 7
1850	11, 3	−0, 7
1875	10, 6	−0, 7
1900	9, 9	−0, 7
1925	9, 2	−0, 7
1950	8, 5	−0, 7
1975	7, 8	−0, 6
2000	7, 2	−0, 7
2025	6, 5	−0, 6
2050	5, 9	−0, 6
2075	5, 3	−0, 7
2100	4, 6	−0, 6
2125	4, 0	−0, 5
2150	3, 5	−0, 5
2175	3, 0	−0, 4
2200	2, 6	−0, 4
2225	2, 2	−0, 3
2250	1, 9	−0, 3
2275	1, 6	−0, 2
2300	1, 4	−0, 2
2325	1, 2	−0, 2
2350	1, 0	−0, 1
2375	0, 9	0, 0
2300	0, 9	0, 0
2425	0, 9	+0, 1
2450	1, 0	

Const. +10,″

TAB. XVI.

Arg. IX. (☿ − 4♂)

N.	Aeq.	Diff.
0	0,″8	−0,″1
60	0, 7	−0, 1
120	0, 6	−0, 1
180	0, 5	−0, 1
240	0, 4	−0, 1
300	0, 3	0, 0
360	0, 3	0, 0
420	0, 3	0, 0
480	0, 3	+0, 1
540	0, 4	0, 0
600	0, 4	0, 0
660	0, 4	+0, 1
720	0, 5	0, 0
780	0, 5	+0, 1
840	0, 6	+0, 1
900	0, 7	+0, 1
960	0, 8	+0, 1
1020	0, 9	+0, 1
1080	1, 0	+0, 1
1140	1, 1	+0, 1
1200	1, 2	+0, 1
1260	1, 3	+0, 1
1320	1, 4	+0, 1
1380	1, 5	+0, 1
1440	1, 6	+0, 1
1500	1, 7	0, 0
1560	1, 7	0, 0
1620	1, 7	0, 0
1680	1, 7	−0, 1
1740	1, 6	0, 0
1800	1, 6	0, 0
1860	1, 6	−0, 1
1920	1, 5	0, 0
1980	1, 5	−0, 1
2040	1, 4	−0, 1
2100	1, 3	−0, 1
2160	1, 2	−0, 1
2220	1, 1	−0, 1
2280	1, 0	−0, 1
2340	0, 9	−0, 1
2400	0, 8	−0, 1
2460	0, 7	−0, 1
2520	0, 6	−0, 1
2580	0, 5	0, 0
2640	0, 5	−0, 1
2700	0, 4	−0, 1
2760	0, 3	0, 0
2820	0, 3	0, 0
2880	0, 3	+0, 1
2940	0, 4	

Const. +1″,

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	O^s	Diff. pro 1′	Var. saecul.	I^s	Diff. pro 1′	Var. saecul.	II^s	Diff. pro 1′	Var. saecul.	Anom. med.
			+			+			+	
0° 0′	0,4666933	0,2	15	0,4592255	82,8	14	0,4373379	159,2	11	30° 0′
10	0,4666931	0,7	15	0,4591427	83,2	14	0,4371787	159,5	11	50
20	0,4666924	1,2	15	0,4590595	83,6	14	0,4370192	159,9	11	40
30	0,4666912	1,6	15	0,4589759	84,1	14	0,4368593	160,3	11	30
40	0,4666896	2,1	15	0,4588918	84,6	14	0,4366990	160,7	11	20
50	0,4666875	2,5	15	0,4588072	85,0	14	0,4365383	161,1	11	10
1 0	0,4666850	3,0	15	0,4587222	85,4	14	0,4363772	161,5	11	29 0
10	0,4666820	3,5	15	0,4586368	85,9	14	0,4362157	161,9	11	50
20	0,4666785	3,9	15	0,4585509	86,3	14	0,4360538	162,3	11	40
30	0,4666746	4,4	15	0,4584646	86,8	14	0,4358915	162,6	11	30
40	0,4666702	4,9	15	0,4583778	87,2	14	0,4357289	163,0	11	20
50	0,4666653	5,3	15	0,4582906	87,7	14	0,4355659	163,4	11	10
2 0	0,4666600	5,8	15	0,4582029	88,1	14	0,4354025	163,8	11	28 0
10	0,4666542	6,3	15	0,4581148	88,6	14	0,4352387	164,2	11	50
20	0,4666479	6,7	15	0,4580262	89,0	14	0,4350745	164,6	11	40
30	0,4666412	7,2	15	0,4579372	89,5	14	0,4349099	164,9	11	30
40	0,4666340	7,6	15	0,4578477	89,9	14	0,4347450	165,3	11	20
50	0,4666264	8,1	15	0,4577578	90,4	14	0,4345797	165,7	11	10
3 0	0,4666183	8,6	15	0,4576674	90,8	14	0,4344140	166,1	11	27 0
10	0,4666097	9,0	15	0,4575766	91,2	14	0,4342479	166,5	10	50
20	0,4666007	9,5	15	0,4574854	91,7	14	0,4340814	166,9	10	40
30	0,4665912	10,0	15	0,4573937	92,1	14	0,4339145	167,2	10	30
40	0,4665812	10,4	15	0,4573016	92,6	14	0,4337473	167,6	10	20
50	0,4665708	10,9	15	0,4572090	93,0	14	0,4335797	168,0	10	10
4 0	0,4665599	11,4	15	0,4571160	93,5	14	0,4334117	168,4	10	26 0
10	0,4665485	11,8	15	0,4570225	93,9	14	0,4332433	168,7	10	50
20	0,4665367	12,3	15	0,4569286	94,3	14	0,4330746	169,1	10	40
30	0,4665244	12,7	15	0,4568343	94,8	14	0,4329055	169,5	10	30
40	0,4665117	13,2	15	0,4567395	95,3	14	0,4327360	169,9	10	20
50	0,4664985	13,7	15	0,4566442	95,7	14	0,4325661	170,3	10	10
5 0	0,4664848	14,1	15	0,4565485	96,1	14	0,4323958	170,6	10	25 0
10	0,4664707	14,6	15	0,4564524	96,6	14	0,4322252	171,0	10	50
20	0,4664561	15,1	15	0,4563558	97,0	14	0,4320542	171,4	10	40
30	0,4664410	15,5	15	0,4562588	97,5	13	0,4318828	171,7	10	30
40	0,4664255	16,0	15	0,4561613	97,9	13	0,4317111	172,1	10	20
50	0,4664095	16,4	15	0,4560634	98,3	13	0,4315390	172,5	10	10
6 0	0,4663931		15	0,4559651		13	0,4313665		10	24 0
	XI^s			X^s			IX^s			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	III^{s}	Diff. pro 1′	Var. saecul. +	IV^{s}	Diff. pro 1′	Var. saecul. −	V^{s}	Diff. pro 1′	Var. saecul. −	Anom. med.
0° 0′	0,4030256	218,0	6	0,3613814	234,7	2	0,3236219	166,7	10	30° 0′
10	0,4028076	218,2	6	0,3611467	234,5	2	0,3234552	166,1	11	50
20	0,4025894	218,5	6	0,3609122	234,5	2	0,3232891	165,3	11	40
30	0,4023709	218,7	6	0,3606777	234,3	2	0,3231238	164,7	11	30
40	0,4021522	218,9	6	0,3604434	234,3	2	0,3229591	164,0	11	20
50	0,4019333	219,2	6	0,3602091	234,1	2	0,3227951	163,3	11	10
1 0	0,4017141	219,4	6	0,3599750	234,0	2	0,3226318	162,6	11	29 0
10	0,4014947	219,7	5	0,3597410	233,9	2	0,3224692	161,8	11	50
20	0,4012750	219,9	5	0,3595071	233,8	2	0,3223074	161,2	11	40
30	0,4010551	220,1	5	0,3592733	233,7	2	0,3221462	160,4	11	30
40	0,4008350	220,4	5	0,3590396	233,5	2	0,3219858	159,8	11	20
50	0,4006146	220,6	5	0,3588061	233,4	2	0,3218260	159,0	11	10
2 0	0,4003940	220,8	5	0,3585727	233,3	2	0,3216670	158,3	11	28 0
10	0,4001732	221,1	5	0,3583394	233,1	2	0,3215087	157,5	11	50
20	0,3999521	221,2	5	0,3581063	233,0	2	0,3213512	156,8	11	40
30	0,3997309	221,5	5	0,3578733	232,9	3	0,3211944	156,1	11	30
40	0,3995094	221,7	5	0,3576404	232,7	3	0,3210383	155,4	11	20
50	0,3992877	221,9	5	0,3574077	232,6	3	0,3208829	154,6	11	10
3 0	0,3990658	222,1	5	0,3571751	232,5	3	0,3207283	153,9	11	27 0
10	0,3988437	222,4	5	0,3569426	232,3	3	0,3205744	153,1	11	50
20	0,3986213	222,6	5	0,3567103	232,1	3	0,3204213	152,4	11	40
30	0,3983987	222,8	5	0,3564782	232,0	3	0,3202689	151,6	11	30
40	0,3981759	223,0	5	0,3562462	231,8	3	0,3201173	150,9	11	20
50	0,3979529	223,2	5	0,3560144	231,7	3	0,3199664	150,1	11	10
4 0	0,3977297	223,4	5	0,3557827	231,5	3	0,3198163	149,3	11	26 0
10	0,3975063	223,7	5	0,3555512	231,4	3	0,3196670	148,6	11	50
20	0,3972826	223,8	5	0,3553198	231,2	3	0,3195184	147,8	11	40
30	0,3970588	224,1	5	0,3550886	231,0	3	0,3193706	147,0	12	30
40	0,3968347	224,3	5	0,3548576	230,8	3	0,3192236	146,2	12	20
50	0,3966104	224,5	5	0,3546268	230,7	3	0,3190774	145,5	12	10
5 0	0,3963859	224,7	5	0,3543961	230,4	3	0,3189319	144,7	12	25 0
10	0,3961612	224,8	5	0,3541657	230,3	3	0,3187872	143,9	12	50
20	0,3959364	225,1	5	0,3539354	230,1	3	0,3186433	143,1	12	40
30	0,3957113	225,2	5	0,3537053	229,9	3	0,3185002	142,3	12	30
40	0,3954861	225,5	4	0,3534754	229,7	4	0,3183579	141,5	12	20
50	0,3952606	225,6	4	0,3532457	229,5	4	0,3182164	140,7	12	10
6 0	0,3950350		4	0,3530162		4	0,3180757		12	24 0
	VIII^{s}			VII^{s}			VI^{s}			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	O^s	Diff. pro 1′	Var. saecul.	I^s	Diff. pro 1′	Var. saecul.	II^s	Diff. pro 1′	Var. saecul.	Anom. med.
			+			+			+	
6° 0′	0,4663931	16,9	15	0,4559651	98,8	13	0,4313665	172,9	10	24° 0′
10	0,4663762	17,4	15	0,4558663	99,2	13	0,4311936	173,2	10	50
20	0,4663588	17,8	15	0,4557671	99,7	13	0,4310204	173,6	10	40
30	0,4663410	18,3	15	0,4556674	100,1	13	0,4308468	173,9	10	30
40	0,4663227	18,8	15	0,4555673	100,5	13	0,4306729	174,4	10	20
50	0,4663039	19,2	15	0,4554668	101,0	13	0,4304985	174,7	10	10
7 0	0,4662847	19,7	15	0,4553658	101,4	13	0,4303238	175,1	10	23 0
10	0,4662650	20,1	15	0,4552644	101,9	13	0,4301487	175,4	10	50
20	0,4662449	20,6	15	0,4551625	102,3	13	0,4299733	175,8	10	40
30	0,4662243	21,1	15	0,4550602	102,8	13	0,4297975	176,2	10	30
40	0,4662032	21,5	15	0,4549574	103,2	13	0,4296213	176,5	10	20
50	0,4661817	22,0	15	0,4548542	103,6	13	0,4294448	176,9	10	10
8 0	0,4661597	22,5	15	0,4547506	104,0	13	0,4292679	177,3	10	22 0
10	0,4661372	22,9	15	0,4546466	104,5	13	0,4290906	177,6	10	50
20	0,4661143	23,4	15	0,4545421	104,9	13	0,4289130	178,0	10	40
30	0,4660909	23,8	15	0,4544372	105,4	13	0,4287350	178,3	10	30
40	0,4660671	24,3	15	0,4543318	105,8	13	0,4285567	178,7	10	20
50	0,4660428	24,8	15	0,4542260	106,2	13	0,4283780	179,1	10	10
9 0	0,4660180	25,2	15	0,4541198	106,7	13	0,4281989	179,4	10	21 0
10	0,4659928	25,7	15	0,4540131	107,1	13	0,4280195	179,8	10	50
20	0,4659671	26,2	15	0,4539060	107,5	13	0,4278397	180,1	10	40
30	0,4659409	26,6	15	0,4537985	108,0	13	0,4276596	180,5	10	30
40	0,4659143	27,1	15	0,4536905	108,4	13	0,4274791	180,9	10	20
50	0,4658872	27,5	15	0,4535821	108,9	13	0,4272982	181,2	9	10
10 0	0,4658597	28,0	15	0,4534732	109,3	13	0,4271170	181,6	9	20 0
10	0,4658317	28,4	15	0,4533639	109,7	13	0,4269354	181,9	9	50
20	0,4658033	28,9	15	0,4532542	110,2	13	0,4267535	182,3	9	40
30	0,4657744	29,4	15	0,4531440	110,6	13	0,4265712	182,6	9	30
40	0,4657450	29,9	15	0,4530334	111,0	13	0,4263886	183,0	9	20
50	0,4657151	30,3	15	0,4529224	111,5	13	0,4262056	183,4	9	10
11 0	0,4656848	30,8	15	0,4528109	111,9	13	0,4260222	183,7	9	19 0
10	0,4656540	31,2	15	0,4526990	112,3	13	0,4258385	184,0	9	50
20	0,4656228	31,7	15	0,4525867	112,8	13	0,4256545	184,4	9	40
30	0,4655911	32,1	15	0,4524739	113,2	13	0,4254701	184,7	9	30
40	0,4655590	32,6	15	0,4523607	113,6	13	0,4252854	185,1	9	20
50	0,4655264	33,1	15	0,4522471	114,1	13	0,4251003	185,4	9	10
12 0	0,4654933		15	0,4521330		13	0,4249149		9	18 0
	XI^s			X^s			IX^s			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	III^{S}	Diff. pro 1′	Var. saecul.	IV^{S}	Diff. pro 1′	Var. saecul.	V^{S}	Diff. pro 1′	Var. saecul.	Anom. med.
			+			−			−	
6° 0′	0,3950350	225,9	4	0,3520162	229,4	4	0,3180757	139,9	12	24° 0′
10	0,3948091	226,0	4	0,3527868	229,1	4	0,3179358	139,1	12	50
20	0,3945831	226,3	4	0,3525577	228,9	4	0,3177967	138,3	12	40
30	0,3943568	226,4	4	0,3523288	228,7	4	0,3176584	137,5	12	30
40	0,3941304	226,6	4	0,3521001	228,5	4	0,3175209	136,7	12	20
50	0,3939038	226,8	4	0,3518716	228,3	4	0,3173842	135,8	12	10
7 0	0,3936770	227,0	4	0,3516433	228,1	4	0,3172484	135,1	12	23 0
10	0,3934500	227,1	4	0,3514152	227,9	4	0,3171133	134,2	12	50
20	0,3932229	227,3	4	0,3511873	227,7	4	0,3169791	133,4	12	40
30	0,3929956	227,5	4	0,3509596	227,4	4	0,3168457	132,5	12	30
40	0,3927681	227,7	4	0,3507322	227,2	4	0,3167132	131,7	12	20
50	0,3925404	227,9	4	0,3505050	226,9	4	0,3165815	130,9	12	10
8 0	0,3923125	228,1	4	0,3502781	226,7	4	0,3164506	130,0	12	22 0
10	0,3920844	228,2	4	0,3500514	226,5	4	0,3163206	129,2	12	50
20	0,3918562	228,4	4	0,3498249	226,3	4	0,3161914	128,4	12	40
30	0,3916278	228,5	4	0,3495986	226,0	4	0,3160630	127,5	12	30
40	0,3913993	228,7	4	0,3493726	225,8	4	0,3159355	126,6	12	20
50	0,3911706	228,9	4	0,3491468	225,5	4	0,3158089	125,8	13	10
9 0	0,3909417	229,1	4	0,3489213	225,3	4	0,3156831	124,9	13	21 0
10	0,3907126	229,2	4	0,3486960	225,0	5	0,3155582	124,1	13	50
20	0,3904834	229,4	4	0,3484710	224,7	5	0,3154341	123,2	13	40
30	0,3902540	229,6	4	0,3482463	224,5	5	0,3153109	122,3	13	30
40	0,3900244	229,7	4	0,3480218	224,2	5	0,3151886	121,5	13	20
50	0,3897947	229,9	4	0,3477976	224,0	5	0,3150671	120,6	13	10
10 0	0,3895648	230,1	4	0,3475736	223,7	5	0,3149465	119,7	13	20 0
10	0,3893347	230,2	3	0,3473499	223,4	5	0,3148268	118,8	13	50
20	0,3891045	230,3	3	0,3471265	223,1	5	0,3147080	117,9	13	40
30	0,3888742	230,5	3	0,3469034	222,9	5	0,3145901	117,1	13	30
40	0,3886437	230,6	3	0,3466805	222,6	5	0,3144730	116,2	13	20
50	0,3884131	230,8	3	0,3464579	222,3	5	0,3143568	115,3	13	10
11 0	0,3881823	230,9	3	0,3462356	222,0	5	0,3142415	114,4	13	19 0
10	0,3879514	231,1	3	0,3460136	221,7	5	0,3141271	113,5	13	50
20	0,3877203	231,2	3	0,3457919	221,4	5	0,3140136	112,6	13	40
30	0,3874891	231,4	3	0,3455705	221,1	5	0,3139010	111,7	13	30
40	0,3872577	231,5	3	0,3453494	220,8	5	0,3137893	110,8	13	20
50	0,3870262	231,6	3	0,3451286	220,5	5	0,3136785	109,9	13	10
12 0	0,3867946		3	0,3449081		5	0,3135686		13	18 0
	VIII^{S}			VII^{S}			VI^{S}			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	O^S	Diff. pro 1′	Var. saecul.	I^S	Diff. pro 1′	Var. saecul.	II^S	Diff. pro 1′	Var. saecul.	Anom. med.
			+			+			+	
12° 0′	0,4654933	33,5	15	0,4521330	114,5	13	0,4249149	185,8	9	18° 0′
10	0,4654598	34,0	15	0,4520185	114,9	13	0,4247291	186,1	9	50
20	0,4654258	34,5	15	0,4519036	115,4	13	0,4245430	186,5	9	40
30	0,4653913	34,9	15	0,4517882	115,8	13	0,4243565	186,8	9	30
40	0,4653564	35,4	15	0,4516724	116,2	13	0,4241697	187,1	9	20
50	0,4653210	35,8	15	0,4515562	116,7	13	0,4239826	187,5	9	10
13 0	0,4652852	36,3	15	0,4514395	117,1	13	0,4237951	187,8	9	17 0
10	0,4652489	36,8	15	0,4513224	117,5	13	0,4236073	188,2	9	50
20	0,4652121	37,2	15	0,4512049	117,9	13	0,4234191	188,5	9	40
30	0,4651749	37,7	15	0,4510870	118,4	13	0,4232306	188,9	9	30
40	0,4651372	38,2	15	0,4509686	118,8	13	0,4230417	189,2	9	20
50	0,4650990	38,6	15	0,4508498	119,3	13	0,4228525	189,5	9	10
14 0	0,4650604	39,1	15	0,4507305	119,7	13	0,4226630	189,8	9	16 0
10	0,4650213	39,5	15	0,4506108	120,1	13	0,4224732	190,2	9	50
20	0,4649818	40,0	15	0,4504907	120,5	13	0,4222830	190,5	9	40
30	0,4649418	40,4	15	0,4503702	121,0	13	0,4220925	190,9	9	30
40	0,4649014	40,9	15	0,4502492	121,4	13	0,4219016	191,2	9	20
50	0,4648605	41,4	15	0,4501278	121,8	13	0,4217104	191,5	9	10
15 0	0,4648191	41,8	15	0,4500060	122,2	13	0,4215189	191,9	9	15 0
10	0,4647773	42,3	15	0,4498838	122,7	13	0,4213270	192,2	9	50
20	0,4647350	42,7	15	0,4497611	123,1	13	0,4211348	192,5	9	40
30	0,4646923	43,2	15	0,4496380	123,6	13	0,4209423	192,9	9	30
40	0,4646491	43,7	15	0,4495144	123,9	13	0,4207494	193,2	9	20
50	0,4646054	44,1	15	0,4493905	124,4	13	0,4205562	193,6	9	10
16 0	0,4645613	44,6	15	0,4492661	124,8	13	0,4203626	193,8	9	14 0
10	0,4645167	45,0	15	0,4491413	125,2	13	0,4201688	194,2	9	50
20	0,4644717	45,5	15	0,4490161	125,6	13	0,4199746	194,5	8	40
30	0,4644262	46,0	15	0,4488905	126,1	13	0,4197801	194,9	8	30
40	0,4643802	46,4	15	0,4487644	126,5	13	0,4195852	195,1	8	20
50	0,4643338	46,9	15	0,4486379	126,9	13	0,4193901	195,5	8	10
17 0	0,4642869	47,3	15	0,4485110	127,3	13	0,4191946	195,8	8	13 0
10	0,4642396	47,8	15	0,4483837	127,8	12	0,4189988	196,2	8	50
20	0,4641918	48,3	15	0,4482559	128,2	12	0,4188026	196,5	8	40
30	0,4641435	48,7	15	0,4481277	128,6	12	0,4186061	196,8	8	30
40	0,4640948	49,2	15	0,4479991	129,0	12	0,4184093	197,1	8	20
50	0,4540456	49,6	15	0,4478701	129,4	12	0,4182122	197,4	8	10
18 0	0,4639960		15	0,4477407		12	0,4180148		8	12 0
	XI^S			X^S			IX^S			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	III^{s}	Diff. pro 1′	Var. saecul. +	IV^{s}	Diff. pro 1′	Var. saecul. −	V^{s}	Diff. pro 1′	Var. saecul. −	Anom. med.
12° 0′	0,3867946	231,8	3	0,3449081	220,2	5	0,3135686	109,0	13	18° 0′
10	0,3865628	231,9	3	0,3446879	219,9	5	0,3134596	108,0	13	50
20	0,3863309	232,0	3	0,3444680	219,6	5	0,3133516	107,2	13	40
30	0,3860989	232,2	3	0,3442484	219,2	6	0,3132444	106,2	13	30
40	0,3858667	232,3	3	0,3440292	218,9	6	0,3131382	105,3	13	20
50	0,3856344	232,5	3	0,3438103	218,6	6	0,3130329	104,4	13	10
13 0	0,3854019	232,5	3	0,3435917	218,3	6	0,3129285	103,5	13	17 0
10	0,3851694	232,7	3	0,3433734	217,9	6	0,3128250	102,5	13	50
20	0,3849367	232,8	3	0,3431555	217,6	6	0,3127225	101,6	13	40
30	0,3847039	232,9	3	0,3429379	217,2	6	0,3126209	100,7	13	30
40	0,3844710	233,0	3	0,3427207	216,9	6	0,3125202	99,7	13	20
50	0,3842380	233,2	3	0,3425038	216,6	6	0,3124205	98,8	13	10
14 0	0,3840048	233,3	3	0,3422872	216,2	6	0,3123217	97,8	14	16 0
10	0,3837715	233,4	2	0,3420710	215,9	6	0,3122239	96,9	14	50
20	0,3835381	233,5	2	0,3418551	215,5	6	0,3121270	96,0	14	40
30	0,3833046	233,6	2	0,3416396	215,2	6	0,3120310	95,0	14	30
40	0,3830710	233,7	2	0,3414244	214,8	6	0,3119360	94,1	14	20
50	0,3828373	233,8	2	0,3412096	214,4	6	0,3118419	93,1	14	10
15 0	0,3826035	233,9	2	0,3409952	214,1	6	0,3117488	92,1	14	15 0
10	0,3823696	234,1	2	0,3407811	213,7	6	0,3116567	91,2	14	50
20	0,3821355	234,2	2	0,3405674	213,3	6	0,3115655	90,2	14	40
30	0,3819013	234,2	2	0,3403541	213,0	6	0,3114753	89,3	14	30
40	0,3816671	234,3	2	0,3401411	212,5	6	0,3113860	88,3	14	20
50	0,3814328	234,4	2	0,3399286	212,2	7	0,3112977	87,3	14	10
16 0	0,3811984	234,5	2	0,3397164	211,8	7	0,3112104	86,3	14	14 0
10	0,3809639	234,6	2	0,3395046	211,4	7	0,3111241	85,4	14	50
20	0,3807293	234,7	2	0,3392932	211,0	7	0,3110387	84,4	14	40
30	0,3804946	234,8	2	0,3390822	210,6	7	0,3109543	83,5	14	30
40	0,3802598	234,9	2	0,3388716	210,2	7	0,3108708	82,5	14	20
50	0,3800249	234,9	2	0,3386614	209,8	7	0,3107883	81,5	14	10
17 0	0,3797900	235,1	2	0,3384516	209,4	7	0,3107068	80,5	14	13 0
10	0,3795549	235,1	2	0,3382422	208,9	7	0,3106263	79,5	14	50
20	0,3793198	235,2	2	0,3380333	208,6	7	0,3105468	78,5	14	40
30	0,3790846	235,3	2	0,3378247	208,1	7	0,3104683	77,6	14	30
40	0,3788493	235,3	2	0,3376166	207,7	7	0,3103907	76,5	14	20
50	0,3786140	235,4	2	0,3374089	207,3	7	0,3103142	75,6	14	10
18 0	0,3783786		1	0,3372016		7	0,3102386		14	12 0
	VIII^{s}			VII^{s}			VI^{s}			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	O^s	Diff. pro 1′	Var. saecul.	I^s	Diff. pro 1′	Var. saecul.	II^s	Diff. pro 1′	Var. saecul.	Anom. med.
			+			+			+	
18° 0′	0,4639960	50,1	15	0,4477407	129,8	12	0,4180148	197,7	8	12° 0′
10	0,4639459	50,5	14	0,4476109	130,3	12	0,4178171	198,1	8	50
20	0,4638954	51,0	14	0,4474806	130,7	12	0,4176190	198,3	8	40
30	0,4638444	51,5	14	0,4473499	131,1	12	0,4174207	198,7	8	30
40	0,4637929	51,9	14	0,4472188	131,5	12	0,4172220	199,0	8	20
50	0,4637410	52,4	14	0,4470873	132,0	12	0,4170230	199,3	8	10
19 0	0,4636886	52,8	14	0,4469553	132,4	12	0,4168237	199,6	8	11 0
10	0,4636358	53,3	14	0,4468229	132,8	12	0,4166241	200,0	8	50
20	0,4635825	53,8	14	0,4466901	133,2	12	0,4164241	200,2	8	40
30	0,4635287	54,2	14	0,4465569	133,7	12	0,4162239	200,6	8	30
40	0,4634745	54,7	14	0,4464232	134,0	12	0,4160233	200,9	8	20
50	0,4634198	55,1	14	0,4462892	134,5	12	0,4158224	201,1	8	10
20 0	0,4633647	55,6	14	0,4461547	134,9	12	0,4156213	201,4	8	10 0
10	0,4633091	56,0	14	0,4460198	135,3	12	0,4154199	201,8	8	50
20	0,4632531	56,5	14	0,4458845	135,7	12	0,4152181	202,1	8	40
30	0,4631966	57,0	14	0,4457488	136,1	12	0,4150160	202,4	8	30
40	0,4631396	57,4	14	0,4456127	136,5	12	0,4148136	202,7	8	20
50	0,4630822	57,9	14	0,4454762	137,0	12	0,4146109	203,0	8	10
21 0	0,4630243	58,3	14	0,4453392	137,4	12	0,4144079	203,3	8	9 0
10	0,4629660	58,8	14	0,4452018	137,8	12	0,4142046	203,6	8	50
20	0,4629072	59,2	14	0,4450640	138,2	12	0,4140010	203,9	8	40
30	0,4628480	59,7	14	0,4449258	138,6	12	0,4137971	204,2	8	30
40	0,4627883	60,2	14	0,4447872	139,0	12	0,4135929	204,5	7	20
50	0,4627281	60,6	14	0,4446482	139,5	12	0,4133884	204,8	7	10
22 0	0,4626675	61,0	14	0,4445087	139,9	12	0,4131836	205,1	7	8 0
10	0,4626065	61,5	14	0,4443688	140,3	12	0,4129785	205,4	7	50
20	0,4625450	62,0	14	0,4442285	140,7	12	0,4127731	205,7	7	40
30	0,4624830	62,4	14	0,4440878	141,1	12	0,4125674	205,9	7	30
40	0,4624206	62,9	14	0,4439467	141,5	12	0,4123615	206,3	7	20
50	0,4623577	63,3	14	0,4438052	141,9	12	0,4121552	206,5	7	10
23 0	0,4622944	63,8	14	0,4436633	142,3	12	0,4119487	206,9	7	7 0
10	0,4622306	64,3	14	0,4435210	142,8	12	0,4117418	207,1	7	50
20	0,4621663	64,7	14	0,4433782	143,1	12	0,4115347	207,4	7	40
30	0,4621016	65,1	14	0,4432351	143,6	12	0,4113273	207,7	7	30
40	0,4620365	65,6	14	0,4430915	144,0	12	0,4111196	208,0	7	20
50	0,4619709	66,1	14	0,4429475	144,4	12	0,4109116	208,2	7	10
24 0	0,4619048		14	0,4428031		12	0,4107034		7	6 0
	XI^s			X^s			IX^s			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	III^{s}	Diff. pro 1′	Var. saecul.	IV^{s}	Diff. pro 1′	Var. saecul.	V^{s}	Diff. pro 1′	Var. saecul.	Anom. med.
			+			—			—	
18° 0′	0,3783786		1	0,3372016		7	0,3102386		14	12° 0′
		235,5			206,9			74,5		
10	0,3781431		1	0,3369947		7	0,3101641		14	50
		235,5			206,4			73,6		
20	0,3779076		1	0,3367883		7	0,3100905		14	40
		235,6			206,0			72,6		
30	0,3776720		1	0,3365823		7	0,3100179		14	30
		235,7			205,6			71,6		
40	0,3774363		1	0,3363767		7	0,3099463		14	20
		235,7			205,1			70,6		
50	0,3772006		1	0,3361716		7	0,3098757		14	10
		235,8			204,7			69,6		
19 0	0,3769648		1	0,3359669		7	0,3098061		14	11 0
		235,9			204,2			68,6		
10	0,3767289		1	0,3357627		8	0,3097375		14	50
		235,9			203,8			67,5		
20	0,3764930		1	0,3355589		8	0,3096700		14	40
		235,9			203,3			66,6		
30	0,3762571		1	0,3353556		8	0,3096034		14	30
		236,0			202,8			65,5		
40	0,3760211		1	0,3351528		8	0,3095379		14	20
		236,1			202,4			64,5		
50	0,3757850		1	0,3349504		8	0,3094734		14	10
		236,1			201,9			63,5		
20 0	0,3755489		1	0,3347485		8	0,3094099		14	10 0
		236,2			201,4			62,5		
10	0,3753127		1	0,3345471		8	0,3093474		14	50
		236,2			201,0			61,5		
20	0,3750765		1	0,3343461		8	0,3092859		14	40
		236,2			200,5			60,5		
30	0,3748403		1	0,3341456		8	0,3092254		14	30
		236,3			200,0			59,4		
40	0,3746040		1	0,3339456		8	0,3091660		14	20
		236,3			199,5			58,4		
50	0,3743677		1	0,3337461		8	0,3091076		14	10
		236,3			199,0			57,4		
21 0	0,3741314		1	0,3335471		8	0,3090502		14	9 0
		236,4			198,5			56,4		
10	0,3738950		1	0,3333486		8	0,3089938		14	50
		236,4			198,1			55,3		
20	0,3736586		1	0,3331505		8	0,3089385		14	40
		236,4			197,6			54,3		
30	0,3734222		1	0,3329529		8	0,3088842		14	30
		236,5			197,0			53,3		
40	0,3731857		0	0,3327559		8	0,3088309		14	20
		236,5			196,6			52,2		
50	0,3729492		0	0,3325593		8	0,3087787		14	10
		236,5			196,0			51,2		
22 0	0,3727127		0	0,3323633		8	0,3087275		14	8 0
		236,5			195,5			50,2		
10	0,3724762		0	0,3321678		8	0,3086773		15	50
		236,6			195,0			49,1		
20	0,3722396		0	0,3319728		8	0,3086282		15	40
		236,5			194,5			48,1		
30	0,3720031		0	0,3317783		8	0,3085801		15	30
		236,6			194,0			47,1		
40	0,3717665		0	0,3315843		8	0,3085330		15	20
		236,5			193,4			46,0		
50	0,3715300		0	0,3313909		9	0,3084870		15	10
		236,6			192,9			45,0		
23 0	0,3712934		0	0,3311980		9	0,3084420		15	7 0
		236,6			192,4			44,0		
10	0,3710568		0	0,3310056		9	0,3083980		15	50
		236,6			191,8			42,9		
20	0,3708202		0	0,3308138		9	0,3083551		15	40
		236,6			191,3			41,9		
30	0,3705836		0	0,3306225		9	0,3083132		15	30
		236,6			190,7			40,8		
40	0,3703470		0	0,3304318		9	0,3082724		15	20
		236,6			190,2			39,8		
50	0,3701104		0	0,3302416		9	0,3082326		15	10
		236,5			189,7			38,7		
24 0	0,3698739		0	0,3300519		9	0,3081939		15	6 0
	VIII^{s}			VII^{s}			VI^{s}			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	O^s	Diff. pro 1′	Var. saecul.	I^s	Diff. pro 1′	Var. saecul.	II^s	Diff. pro 1′	Var. saecul.	Anom. med.
			+			+			+	
24° 0′	0,4619048	66,5	14	0,4428031	144,7	12	0,4107034	208,6	7	6° 0′
10	0,4618383	67,0	14	0,4426584	145,2	12	0,4104948	208,8	7	50
20	0,4617713	67,4	14	0,4425132	145,6	12	0,4102860	209,1	7	40
30	0,4617039	67,9	14	0,4423676	146,0	12	0,4100769	209,4	7	30
40	0,4616360	68,3	14	0,4422216	146,4	12	0,4098675	209,7	7	20
50	0,4615677	68.8	14	0,4420752	146,8	12	0,4096578	209,9	7	10
25 0	0,4614989	69,2	14	0,4419284	147,2	12	0,4094479	210,3	7	5 0
10	0,4614297	69,7	14	0,4417812	147,6	12	0,4092376	210,5	7	50
20	0,4613600	70,1	14	0,4416336	148,0	12	0,4090271	210,8	7	40
30	0,4612899	70,6	14	0,4414856	148,4	12	0,4088163	211,1	7	30
40	0,4612193	71.1	14	0,4413372	148,8	12	0,4086052	211,3	7	20
50	0,4611482	71,5	14	0,4411884	149,3	12	0,4083939	211,6	7	10
26 0	0,4610767	71,9	14	0,4410391	149,6	12	0,4081823	211,9	7	4 0
10	0,4610048	72,4	14	0,4408895	150,0	12	0,4079704	212,1	7	50
20	0,4609324	72,9	14	0,4407395	150,4	11	0,4077583	212,4	7	40
30	0,4608595	73,3	14	0,4405891	150,9	11	0,4075459	212,7	7	30
40	0,4607862	73,7	14	0,4404382	151,2	11	0,4073332	212,9	6	20
50	0,4607125	74,2	14	0,4402870	151,7	11	0,4071203	213,2	6	10
27 0	0,4606383	74,7	14	0,4401353	152,0	11	0,4069071	213,5	6	3 0
10	0,4605636	75,1	14	0,4399833	152,5	11	0,4066936	223,7	6	50
20	0,4604885	75,6	14	0,4398308	152,9	11	0,4064799	214,0	6	40
30	0,4604129	76,0	14	0,4396779	153,2	11	0,4062659	214,2	6	30
40	0,4603369	76,5	14	0,4395247	153,6	11	0,4060517	214,5	6	20
50	0,4602604	76,9	14	0,4393711	154,0	11	0,4058372	214,8	6	10
28 0	0,4601835	77,4	14	0,4392171	154,5	11	0,4056224	215,0	6	2 0
10	0,4601061	77,8	14	0,4390626	154,8	11	0,4054074	215,3	6	50
20	0,4600283	78,3	14	0,4389078	155,2	11	0,4051921	215,5	6	40
30	0,4599500	78,7	14	0,4387526	155,6	11	0,4049766	215,8	6	30
40	0,4598713	79,2	14	0,4385970	156,0	11	0,4047608	216,0	6	20
50	0,4597921	79,6	14	0,4384410	156,4	11	0,4045448	216,3	6	10
29 0	0,4597125	80,0	14	0,4382846	156,8	11	0,4043285	216,5	6	1 0
10	0,4596325	80,5	14	0,4381278	157,2	11	0,4041120	216,8	6	50
20	0,4595520	81,0	14	0,4379706	157,6	11	0,4038952	217,0	6	40
30	0,4594710	81,4	14	0,4378130	158,0	11	0,4036782	217,3	6	30
40	0,4593896	81,8	14	0,4376550	158,4	11	0,4034609	217,5	6	20
50	0,4593078	82,3	14	0,4374966	158,7	11	0,4032434	217,8	6	10
30 0	0,4592255		14	0,4373379		11	0,4030256		6	0 0
	XI^s			X^s			IX^s			

TABULA XVII.

Pro distantia Mercurii a Sole in hypothesi elliptica pro anno 1800 cum variatione saeculari.

Argumentum: Anomalia media Mercurii.

Anom. med.	III^{s}	Diff. pro 1′	Var. saecul.	IV^{s}	Diff. pro 1′	Var. saecul	V^{s}	Diff. pro 1′	Var. saecul	Anom. med.
			—			—			—	
24° 0′	0,3698739	236,6	0	0,3300519	189,1	9	0,3081939	37,7	15	6° 0′
10	0,3696373	236,5	0	0,3298628	188,5	9	0,3081562	36,6	15	50
20	0,3694008	236,6	0	0,3296743	188,0	9	0,3081196	35,6	15	40
30	0,3691642	236,5	0	0,3294863	187,4	9	0,3080840	34,5	15	30
40	0,3689277	236,5	0	0,3292989	186.8	9	0,3080495	33,5	15	20
50	0,3686912	236,5	0	0,3291121	186,3	9	0,3080160	32,4	15	10
25 0	0,3684547	236,5	0	0,3289258	185,7	9	0,3079836	31,4	15	5 0
10	0,3682182	236,4	1	0,3287401	185,1	9	0,3079522	30,3	15	50
20	0,3679818	236,4	1	0,3285550	184,5	9	0,3079219	29,2	15	40
30	0,3677454	236,4	1	0,3283705	183.9	9	0,3078927	28,2	15	30
40	0,3675090	236,3	1	0,3281866	183,3	9	0,3078645	27,1	15	20
50	0,3672727	236,3	1	0,3280033	182,8	9	0,3078374	26,1	15	10
26 0	0,3670364	236,3	1	0,3278205	182,1	9	0,3078113	25,0	15	4 0
10	0,3668001	236,2	1	0,3276384	181,6	9	0,3077863	24,0	15	50
20	0,3665639	236,2	1	0,3274568	181,0	9	0,3077623	22,9	15	40
30	0,3663277	236,2	1	0,3272758	180.3	10	0,3077394	21,8	15	30
40	0,3660915	236,1	1	0,3270955	179,7	10	0,3077176	20,8	15	20
50	0,3658554	236,0	1	0,3269158	179,1	10	0,3076968	19,7	15	10
27 0	0,3656194	236,0	1	0,3267367	178,5	10	0,3076771	18,6	15	3 0
10	0,3653834	236,0	1	0,3265582	177,9	10	0,3076585	17,6	15	50
20	0,3651474	235,9	1	0,3263803	177.3	10	0,3076409	16,5	15	40
30	0,3649115	235,8	1	0,3262030	176,6	10	0,3076244	15,5	15	30
40	0,3646757	235,8	1	0,3260264	176,0	10	0,3076089	14,4	15	20
50	0,3644399	235,7	1	0,3258504	175,3	10	0,3075945	13,3	15	10
28 0	0,3642042	235,6	1	0,3256751	174,7	10	0,3075812	12,3	15	2 0
10	0,3639686	235,6	1	0,3255004	174,0	10	0,3075689	11,2	15	50
20	0,3637330	235,5	1	0,3253264	173,4	10	0,3075577	10,1	15	40
30	0,3634975	235,5	1	0,3251530	172,8	10	0,3075476	9,1	15	30
40	0,3632620	235,4	2	0,3249802	172,1	10	0,3075385	8,0	15	20
50	0,3630266	235,3	2	0,3248081	171,5	10	0,3075305	6,9	15	10
29 0	0,3627913	235,2	2	0,3246366	170,8	10	0,3075236	5,9	15	1 0
10	0,3625561	235,1	2	0,3244658	170,1	10	0,3075177	4,8	15	50
20	0,3623210	235,0	2	0,3242957	169,5	10	0,3075129	3,7	15	40
30	0,3620860	235,0	2	0,3241262	168,8	10	0,3075092	2,7	15	30
40	0,3618510	234,9	2	0,3239574	168,1	10	0,3075065	1,6	15	20
50	0,3616161	234,7	2	0,3237893	167,4	10	0,3075049	0,5	15	10
30 0	0,3613814			0,3236219			0,3075044			0 0
	VIII^{s}			VII^{s}			VI^{s}			

Perturbationes rad. vector.

TAB. XVIII.

Arg. II. ☿ − ♀			Arg. II. ☿ − ♀		
N.	Aeq.	Diff.	N.	Aeq.	Diff.
0	33	− 2	294	32	− 7
6	31	− 8	300	25	− 9
12	23	− 9	306	16	− 9
18	14	− 8	312	7	− 5
24	6	− 5	318	2	− 1
30	1	− 0	324	1	+ 4
36	1	+ 5	330	5	+ 7
42	6	+ 8	336	12	+ 9
48	14	+ 8	342	21	+ 8
54	22	+ 8	348	29	+ 6
60	30	+ 5	354	35	+ 2
66	35	+ 2	360	37	− 1
72	37	− 1	366	36	− 4
78	36	− 5	372	32	− 7
84	31	− 8	378	25	− 9
90	23	− 9	384	16	− 8
96	14	− 7	390	8	− 6
102	7	− 5	396	2	− 1
108	2	− 1	402	1	+ 3
114	1	+ 4	408	4	+ 8
120	5	+ 8	414	12	+ 9
126	13	+ 10	420	21	+ 8
132	23	+ 7	426	29	+ 4
138	30	+ 3	432	33	− 1
144	33	− 2	438	32	− 6
150	31	− 7	444	26	− 9
156	24	− 9	450	17	− 9
162	15	− 8	456	8	− 6
168	7	− 5	462	2	− 1
174	2	− 1	468	1	+ 3
180	1	+ 4	474	4	+ 7
186	5	+ 8	480	11	+ 9
192	13	+ 8	486	20	+ 8
198	21	+ 8	492	28	+ 6
204	29	+ 6	498	34	+ 3
210	35	+ 2	504	37	+ 0
216	37	− 1	510	37	− 5
222	36	− 5	516	32	− 7
228	31	− 7	522	25	− 9
234	24	− 9	528	16	
240	15	− 8			
246	7	− 5			
252	2	− 1			
258	1	+ 4			
264	5	+ 8			
270	13	+ 9			
276	22	+ 8			
282	30	+ 3			
288	33	− 1			
294	32				

Const. + 18.

TAB. XIX.

Arg. V. 2☿ − 3♀.			Arg. V. 2☿ − 3♀.		
N.	Aeq.	Diff.	N.	Aeq.	Diff.
0	11	+ 5	245	2	− 2
5	16	+ 5	250	0	+ 1
10	21	+ 4	255	1	+ 2
15	25	+ 3	260	3	+ 4
20	28	+ 1	265	7	+ 5
25	29	+ 0	270	12	+ 5
30	29	− 2	275	17	+ 5
35	27	− 3	280	22	+ 4
40	24	− 5	285	26	+ 2
45	19	− 5	290	28	+ 2
50	14	− 5	295	30	− 1
55	9	− 4	300	29	− 2
60	5	− 3	305	27	− 4
65	2	− 1	310	23	− 5
70	1	− 0	315	18	− 5
75	1	+ 2	320	13	− 5
80	3	+ 4	325	8	− 4
85	7	+ 4	330	4	− 2
90	11	+ 5	335	2	− 2
95	16	+ 5	340	0	+ 1
100	21	+ 4	345	1	+ 2
105	25	+ 3	350	3	+ 4
110	28	+ 2	355	7	+ 5
115	30	− 1	360	12	+ 5
120	29	− 2	365	17	+ 5
125	27	− 4	370	22	+ 4
130	23	− 4	375	26	+ 4
135	19	− 5	280	28	+ 2
140	14	− 5	385	30	− 1
145	9	− 4	390	29	− 3
150	5	− 3	395	26	− 3
155	2	− 2	400	23	− 5
160	0	+ 1	405	18	− 5
165	1	+ 2	410	13	− 5
170	3	+ 4	415	8	− 4
175	7	+ 4	420	4	− 3
180	11	+ 5	425	1	− 1
185	16	+ 5	430	0	+ 1
190	21	+ 4	435	1	+ 3
195	25	+ 3	440	4	+ 3
200	28	+ 1	445	7	+ 5
205	29	+ 0	450	12	+ 5
210	29	− 2	455	17	+ 5
215	27	− 4	460	22	+ 5
220	23	− 5	465	27	
225	18	− 5			
230	13	− 4			
235	9	− 4			
240	5	− 3			
245	2				

Const. + 15.

TAB. XX.

Arg. VII. ☿ − 2♃.		
N.	Aeq.	Diff.
0	28	+ 5
3	33	+ 7
6	40	+ 7
9	47	+ 5
12	52	+ 5
15	57	+ 4
18	61	+ 3
21	64	+ 2
24	66	+ 0
27	66	− 1
30	65	− 2
33	63	− 3
36	60	− 4
39	56	− 4
42	52	− 6
45	46	− 6
48	40	− 7
51	33	− 6
54	27	− 5
57	22	− 5
60	17	− 4
63	13	− 4
66	9	− 2
69	7	− 1
72	6	+ 1
75	7	+ 1
78	8	+ 3
81	11	+ 4
84	15	+ 4
87	19	+ 5
90	24	+ 6
93	30	+ 6
96	36	+ 7
99	43	+ 6
102	49	+ 5
105	54	+ 4
108	58	+ 4
111	62	+ 3
114	65	+ 1
117	66	− 1
120	65	− 1
123	64	− 2
126	62	− 3
129	59	− 4
132	55	− 6
135	49	− 6
138	43	− 6
141	37	− 6
144	31	− 6
147	25	− 5
150	20	

Const. + 36.

Perturbationes rad. vector.

TAB. XX.

Arg. VII. ☿ − 2 ♃.			Arg. VII. ☿ − 2 ♃.			Arg. VII. ☿ − 2 ♃.		
N.	Aeq.	Diff.	N.	Aeq.	Diff.	N.	Aeq.	Diff.
153	15		306	65		0	31	
		− 5			− 3			+ 2
156	10		309	62		3	33	
		− 2			− 3			+ 2
159	8		312	59		6	35	
		− 1			− 4			− 0
162	7		315	55		9	35	
		− 1			− 5			− 0
165	6		318	50		12	35	
		+ 1			− 6			− 1
168	7		321	44		15	34	
		+ 2			− 6			− 2
171	9		324	38		18	32	
		+ 3			− 7			− 2
174	12		327	31		21	30	
		+ 4			− 6			− 3
177	16		330	25		24	27	
		+ 5			− 5			− 4
180	21		333	20		27	23	
		+ 6			− 5			− 4
183	27		336	15		30	19	
		+ 6			− 4			− 3
186	33		339	11		33	16	
		+ 7			− 3			− 4
189	40		342	8		36	12	
		+ 6			− 2			− 4
192	46		345	6		39	8	
		+ 5			− 0			− 3
195	51		348	6		42	5	
		+ 5			+ 1			− 2
198	56		351	7		45	3	
		+ 4			+ 2			− 1
201	60		354	9		48	2	
		+ 3			+ 3			− 1
204	63		357	12		51	1	
		+ 2			+ 4			− 0
207	65		360	16		54	1	
		+ 1			+ 5			+ 1
210	66		363	21		57	2	
		− 1			+ 6			+ 2
213	65		366	27		60	4	
		− 1			+ 6			+ 2
216	64		369	33		63	6	
		− 3			+ 6			+ 3
219	61		372	39		66	9	
		− 4			+ 6			+ 3
222	57		375	45		69	12	
		− 5			+ 6			+ 4
225	52		378	51		72	16	
		− 6			+ 5			+ 4
228	46		381	56		75	20	
		− 6			+ 4			+ 4
231	40		384	60		78	24	
		− 5			+ 3			+ 3
234	35		387	63		81	27	
		− 6			+ 2			+ 3
237	29		390	65		84	30	
		− 6			+ 1			+ 3
240	23		393	66		87	33	
		− 6			− 1			+ 1
243	17		396	65		90	34	
		− 5			− 2			+ 1
246	12		399	63		93	35	
		− 3			− 3			− 0
249	9		402	60		96	35	
		− 2			− 3			− 1
252	7		405	57		99	34	
		− 1			− 4			− 1
255	6		408	53		102	33	
		− 0			− 5			− 3
258	6		411	48		105	30	
		+ 1			− 6			− 3
261	7		414	42		108	27	
		+ 3			− 7			− 3
264	10		417	35		111	24	
		+ 4			− 6			− 4
267	14		420	29		114	20	
		+ 5			− 6			− 4
270	19		423	23		117	16	
		+ 5			− 5			− 4
273	24		426	18		120	12	
		+ 6			− 4			− 3
276	30		429	14		123	9	
		+ 6			− 3			− 3
279	36		432	11		126	6	
		+ 6			− 3			− 3
282	42		435	8		129	3	
		+ 6			− 2			− 1
285	48		438	6		132	2	
		+ 5			+ 1			− 1
288	53		441	7		135	1	
		+ 5			+ 1			− 0
291	58		444	8		138	1	
		+ 4			+ 2			+ 1
294	62		447	10		141	2	
		+ 2			+ 3			+ 1
297	64		450	13		144	3	
		+ 2			+ 4			+ 3
300	66		453	17		147	6	
		− 0			+ 5			
303	66		456	22				

Const. + 36.

TABULA XXI.

Arg. VIII. 3 ☿ − 5 ♀.			Arg. VIII. 3 ☿ − 5 ♀.			Arg. VIII. 3 ☿ − 5 ♀.		
N.	Aeq.	Diff.	N.	Aeq.	Diff.	N.	Aeq.	Diff.
150	9		300	2				
		+ 3			− 1			
153	12		303	1				
		+ 4			− 0			
156	16		306	1				
		+ 4			− 0			
159	20		309	1				
		+ 3			+ 2			
162	23		312	3				
		+ 4			+ 2			
165	27		315	5				
		+ 3			+ 3			
168	30		318	8				
		+ 2			+ 3			
171	32		321	11				
		+ 2			+ 4			
174	34		324	15				
		+ 1			+ 4			
177	35		327	19				
		− 0			+ 4			
180	35		330	23				
		− 1			+ 3			
183	34		333	26				
		− 1			+ 3			
186	33		336	29				
		− 2			+ 3			
189	31		339	32				
		− 3			+ 2			
192	28		342	34				
		− 4			+ 1			
195	24		345	35				
		− 3			− 0			
198	21		348	35				
		− 4			− 0			
201	17		351	35				
		− 4			− 2			
204	13		354	33				
		− 4			− 2			
207	9		357	31				
		− 3			− 3			
210	6		360	28				
		− 2			− 3			
213	4		363	25				
		− 2			− 4			
216	2		366	21				
		− 1			− 3			
219	1		369	18				
		− 0			− 4			
222	1		372	14				
		− 0			− 4			
225	1		375	10				
		+ 2			− 3			
228	3		378	7				
		+ 2			− 3			
231	5		381	4				
		+ 3			− 2			
234	8		384	2				
		+ 4			− 1			
237	12		387	1				
		+ 3			− 0			
240	15		390	1				
		+ 4			− 0			
243	19		393	1				
		+ 4			+ 1			
246	23		396	2				
		+ 4			+ 2			
249	27		399	4				
		+ 3			+ 3			
252	30		402	7				
		+ 2			+ 4			
255	32		405	11				
		+ 2			+ 4			
258	34		408	14				
		+ 1			+ 4			
261	35		411	18				
		− 0			+ 4			
264	35		414	22				
		− 0			+ 4			
267	35		417	26				
		− 2			+ 3			
270	33		420	29				
		− 2			+ 3			
273	31		423	32				
		− 3			+ 2			
276	28		426	34				
		− 3			+ 1			
279	25		429	35				
		− 4			− 0			
282	21		432	35				
		− 4			− 0			
285	17		435	35				
		− 4			− 1			
288	13		438	34				
		− 3			− 2			
291	10		441	32				
		− 3			− 3			
294	7		444	29				
		− 3			− 3			
297	4		447	26				
					− 4			
			450	22				

Const. + 18.

TABULA XXII.

Reductio ad Ecliptica m.

Argumentum latitudinis, seu longitudo vera ☿ — longitudo nodi.

	O^S — VI^S —	Diff. pro 1′	I^S — VII^S —	Diff. pro 1′	II^S — VIII^S —	Diff. pro 1′	III^S + IX^S +	Diff. pro 1′	IV^S + X^S +	Diff. pro 1′	V^S + XI^S +	Diff. pro 1′
°	′ ″	″	′ ″	″	′ ″	″	′ ″	″	′ ″	″	′ ″	″
0	0 31, 0	0, 45	11 38, 3	0, 22	11 40, 8	0, 23	— 0 31, 0	0, 45	10 38, 8	0, 22	10 36, 3	0, 23
1	0 57, 8	0, 45	11 51, 4	0, 21	11 26, 9	0, 24	— 0 4, 0	0, 45	10 51, 8	0, 20	10 22, 3	0, 25
2	1 24, 7	0, 44	12 3, 7	0, 19	11 12, 3	0, 26	+ 0 23, 1	0, 45	11 2, 9	0, 19	10 7, 6	0, 26
3	1 51, 4	0, 44	12 15, 1	0, 18	10 56, 9	0, 27	0 50, 0	0, 45	11 15, 3	0, 17	9 52, 2	0, 27
4	2 18, 0	0, 44	12 25, 7	0, 16	10 40, 7	0, 28	1 16, 8	0, 44	11 25, 7	0, 16	9 35, 8	0, 28
5	2 44, 6	0, 44	12 35, 7	0, 15	10 23, 7	0, 29	1 43, 5	0, 44	11 35, 3	0, 15	9 18, 9	0, 29
6	3 10, 9	0, 44	12 44, 3	0, 13	10 6, 1	0, 31	2 10, 1	0, 44	11 44, 0	0, 13	9 1, 2	0, 30
7	3 37, 1	0, 43	12 52, 3	0, 12	9 47, 7	0, 32	2 36, 4	0, 43	11 51, 8	0, 12	8 42, 9	0, 32
8	4 3, 0	0, 43	12 59, 3	0, 10	9 28, 7	0, 33	3 2, 5	0, 43	11 58, 7	0, 10	8 23, 8	0, 33
9	4 28, 7	0, 42	13 5, 5	0, 09	9 9, 0	0, 34	3 28, 4	0, 42	12 4, 6	0, 09	8 4, 1	0, 34
10	4 54, 1	0, 42	13 10, 7	0, 07	8 48, 6	0, 35	3 53, 9	0, 42	12 9, 7	0, 07	7 43, 8	0, 35
11	5 19, 2	0, 41	13 15, 0	0, 06	8 27, 6	0, 36	4 19, 2	0, 41	12 13, 8	0, 05	7 22, 9	0, 36
12	5 43, 9	0, 41	13 18, 4	0, 04	8 6, 1	0, 37	4 44, 0	0, 41	12 17, 0	0, 04	7 1, 4	0, 37
13	6 8, 3	0, 40	13 20, 9	0, 03	7 44, 0	0, 38	5 8, 5	0, 40	12 19, 3	0, 02	6 39, 3	0, 38
14	6 32, 2	0, 39	13 22, 4	0, 01	7 21, 4	0, 39	5 32, 6	0, 39	12 20, 6	0, 01	6 16, 8	0, 39
15	6 55, 7	0, 38	13 22, 9	0, 01	6 58, 2	0, 39	5 56, 2	0, 39	12 20, 9	0, 01	5 53, 7	0, 39
16	7 18, 8	0, 37	13 22, 6	0, 02	6 34, 6	0, 40	6 19, 4	0, 38	12 20, 4	0, 03	5 30, 2	0, 40
17	7 41, 3	0, 37	13 21, 3	0, 04	6 10, 5	0, 41	6 42, 0	0, 37	12 18, 9	0, 04	5 6, 3	0, 41
18	8 3, 4	0, 36	13 19, 0	0, 05	5 46, 0	0, 41	7 4, 1	0, 36	12 16, 4	0, 06	4 41, 9	0, 41
19	8 24, 9	0, 35	13 15, 8	0, 07	5 21, 2	0, 42	7 25, 6	0, 35	12 13, 0	0, 07	4 17, 2	0, 42
20	8 45, 8	0, 34	13 11, 7	0, 09	4 55, 9	0, 42	7 46, 6	0, 34	12 8, 7	0, 09	3 52, 1	0, 42
21	9 6, 1	0, 33	13 6, 6	0, 10	4 30, 4	0, 43	8 7, 0	0, 33	12 3, 5	0, 10	3 26, 7	0, 43
22	9 25, 8	0, 32	13 0, 7	0, 12	4 4, 5	0, 43	8 26, 7	0, 32	11 57, 3	0, 12	3 1, 0	0, 43
23	9 44, 9	0, 31	12 53, 8	0, 13	3 38, 4	0, 44	8 45, 7	0, 31	11 50, 3	0, 13	2 35, 1	0, 44
24	10 3, 2	0, 30	12 46, 0	0, 15	3 12, 1	0, 44	9 4, 1	0, 29	11 42, 3	0, 15	2 8, 9	0, 44
25	10 20, 9	0, 28	12 37, 3	0, 16	2 45, 5	0, 44	9 21, 7	0, 28	11 33, 5	0, 16	1 42, 6	0, 44
26	10 37, 9	0, 27	12 27, 7	0, 17	2 18, 8	0, 45	9 38, 7	0, 27	11 23, 7	0, 18	1 16, 0	0, 44
27	10 54, 2	0, 26	12 17, 3	0, 19	1 52, 0	0, 45	9 54, 9	0, 26	11 13, 1	0, 19	0 49, 4	0, 45
28	11 9, 6	0, 25	12 4, 9	0, 20	1 25, 1	0, 45	10 10, 3	0, 24	11 1, 7	0, 20	+ 0 21, 7	0, 45
29	11 24, 3	0, 23	11 53, 8	0, 22	0 58, 0	0, 45	10 24, 9	0, 23	10 49, 4	0, 22	— 0 4, 2	0, 45
30	11 38, 2		11 40, 8		0 31, 0		10 38, 8		10 36, 3		— 0 31, 0	

TABULA XXIII.

Latitudo heliocentrica Mercurii pro anno 1800 cum variatione saeculari.

Argumentum latitudinis, seu longitudo vera ☿ — longitudo nodi.

	Latitudo		Var. saec.		Latitudo		Var. saec.		Latitudo		Var. saec.		
	O^{s} Boreal VI^{s} Austral	Diff. pro 1′	+ —	Log. cos. Latitud.	I^{s} Boreal VII^{s} Austr.	Diff. pro 1′	+ —	Log. cos. Latitud.	II^{s} Boreal VIII^{s} Austr.	Diff. pro 1	+ —	Log. cos. Latitud.	
°	° ′ ″	″	″		° ′ ″	″	″		° ′ ″	″	″		°
0	0 0 0, 0	7, 31	0, 0	0,0000000	3 29 39, 5	6, 31	9, 1	9,9991919	6 3 35, 4	3, 62	15, 8	9,9975664	30
1	0 7 18, 8	7, 31	0, 3	9,9999990	3 35 58, 3	6, 25	9, 4	9,9991424	6 7 12, 7	3, 51	16, 0	9,9975176	29
2	0 14 37, 5	7, 31	0, 6	9,9999960	3 42 13, 2	6, 18	9, 7	9,9990920	6 10 43, 3	3, 40	16, 1	9,9974698	28
3	0 21 55, 9	7, 31	0, 9	9,9999911	3 48 24, 1	6, 11	9, 9	9,9990407	6 14 7, 1	3, 28	16, 3	9,9974232	27
4	0 29 13, 6	7, 30	1, 3	9,9999843	3 54 30, 9	6, 04	10, 2	9,9989887	6 17 24, 1	3, 17	16, 4	9,9973777	26
		7, 29											
5	0 36 31, 4		1, 6	9,9999755	4 0 33, 4		10, 5	9,9989359	6 20 34, 2		16, 6	9,9973334	25
6	0 43 48, 3	7, 28	1, 9	9,9999647	4 6 31, 5	5, 97	10, 7	9,9988824	6 23 37, 3	3, 05	16, 7	9,9972903	24
7	0 51 4, 4	7, 27	2, 2	9,9999521	4 12 25, 2	5, 90	10, 9	9,9988282	6 26 33, 4	2, 93	16, 8	9,9972486	23
8	0 58 19, 5	7, 25	2, 5	9,9999375	4 18 14, 4	5, 82	11, 2	9,9987735	6 29 22, 4	2, 82	16, 9	9,9972083	22
9	1 5 33, 5	7, 23	2, 8	9,9999211	4 23 58, 8	5, 74	11, 5	9,9987183	6 32 4, 2	2, 70	17, 0	9,9971694	21
		7, 21				5, 66				2, 58			
10	1 12 46, 4		3, 2	9,9999027	4 29 38, 4		11, 7	9,9986627	6 34 38, 9		17, 2	9,9971320	20
11	1 19 58, 0	7, 19	3, 5	9,9998825	4 35 13, 1	5, 58	12, 0	9,9986068	6 37 6, 4	2, 46	17, 3	9,9970961	19
12	1 27 8, 1	7, 17	3, 8	9,9998605	4 40 42, 9	5, 50	12, 2	9,9985505	6 39 26, 6	2, 34	17, 4	9,9970617	18
13	1 34 16, 7	7, 14	4, 1	9,9998367	4 46 7, 6	5, 41	12, 5	9,9984940	6 41 39, 5	2, 21	17, 5	9,9970289	17
14	1 41 23, 6	7, 11	4, 4	9,9998111	4 51 27, 0	5, 32	12, 7	9,9984373	6 43 45, 0	2, 09	17, 6	9,9969979	16
		7, 08				5, 23				1, 97			
15	1 48 28, 6		4, 7	9,9997838	4 56 41, 1		12, 9	9,9983806	6 45 43, 0		17, 7	9,9969685	15
16	1 55 31, 7	7, 05	5, 0	9,9997547	5 1 49, 8	5, 14	13, 1	9,9983239	6 47 33, 7	1, 84	17, 7	9,9969408	14
17	2 2 32, 7	7, 02	5, 3	9,9997240	5 6 53, 1	5, 05	13, 4	9,9982672	6 49 16, 9	1, 72	17, 8	9,9969148	13
18	2 9 31, 5	6, 98	5, 6	9,9996917	5 11 50, 8	4, 96	13, 6	9,9982106	6 50 52, 5	1, 59	17, 9	9,9968907	12
19	2 16 28, 0	6, 94	5, 9	9,9996578	5 16 42, 8	4, 87	13, 8	9,9981543	6 52 20, 6	1, 47	18, 0	9,9968684	11
		6, 90				4, 77				1, 34			
20	2 23 22, 0		6, 2	9,9996223	5 21 29, 0		14, 0	9,9980982	6 53 41, 2		18, 0	9,9968479	10
21	2 30 13, 4	6, 86	6, 5	9,9995852	5 26 9, 4	4, 67	14, 2	9,9980424	6 54 54, 2	1, 22	18, 1	9,9968293	9
22	2 37 2, 1	6, 81	6, 8	9,9995467	5 30 43, 8	4, 57	14, 4	9,9979871	6 55 59, 5	1, 09	18, 1	9,9968126	8
23	2 43 48, 0	6, 76	7, 1	9,9995068	5 35 12, 2	4, 47	14, 6	9,9979322	6 56 57, 2	0, 96	18, 1	9,9967978	7
24	2 50 30, 9	6, 71	7, 4	9,9994655	5 39 34, 5	4, 37	14, 8	9,9978778	6 57 47, 2	0, 83	18, 2	9,9967849	6
		6, 66				4, 27				0, 71			
25	2 57 10, 7		7, 7	9,9994229	5 43 50, 6		15, 0	9,9978241	6 58 29, 2		18, 2	9,9967740	5
26	3 3 47, 4	6, 61	8, 0	9,9993791	5 48 0, 4	4, 16	15, 2	9,9977710	6 59 4, 3	0, 58	18, 2	9,9967651	4
27	3 10 20, 7	6, 55	8, 3	9,9993339	5 52 3, 9	4, 06	15, 4	9,9977186	6 59 31, 3	0, 45	18, 3	9,9967582	3
28	3 16 50, 5	6, 50	8, 6	9,9992876	5 56 0, 9	3, 95	15, 5	9,9976670	6 59 50, 6	0, 32	18, 3	9,9967532	2
29	3 23 16, 8	6, 44	8, 9	9,9992403	5 59 51, 4	3, 84	15, 7	9,9976163	7 0 2, 1	0, 19	18, 3	9,9967502	1
30	3 29 39, 5	6, 38	9, 1	9,9991919	6 3 35, 4	3, 73	15, 8	9,9975664	7 0 6, 0	0, 06	18, 3	9,9967491	0
	IX^{s} Austral V^{s} Boreal		— +		X^{s} Austral IV^{s} Boreal		— +		IX^{s} Austral III^{s} Boreal		— +		

TABULA XXIV.

Aberratio Mercurii in longitudine.

Pars I. Arg. Elongatio.			Pars II. Arg. Annua Parall.			Pars III. Arg. long. geocentr.		
Elong.	Aberrat.	Elong.	Annua Paral.	Aberrat.	Annua Paral.	longit. geoc.	Aberrat.	longit. geoc.
0°	— 20,″3	360°	0°	— 32,″8 —	360°	0°	— 1,″8 +	180°
4	20, 2	356	4	32, 7	356	4	2, 3	184
8	20, 1	352	8	32, 5	352	8	2, 7	188
12	19, 8	348	12	32, 1	348	12	3, 1	192
16	19, 5	344	16	31, 5	344	16	3, 6	196
20	19, 0	340	20	30, 8	340	20	4, 0	200
24	18, 5	336	24	30, 0	336	24	4, 4	204
28	17, 9	332	28	29, 0	332	28	4, 7	208
32	17, 2	328	32	27, 8	328	32	5, 1	212
36	16, 4	324	36	26, 5	324	36	5, 4	216
40	15, 5	320	40	25, 1	320	40	5, 7	220
44	14, 5	316	44	23, 6	316	44	5, 9	224
48	13, 5	312	48	22, 0	312	48	6, 2	228
52	12, 5	308	52	20, 1	308	52	6, 4	232
56	11, 3	304	56	18, 3	304	56	6, 6	236
60	10, 1	300	60	16, 4	300	60	6, 7	240
64	8, 9	296	64	14, 4	296	64	6, 8	244
68	7, 6	292	68	12, 3	292	68	6, 9	248
72	6, 3	288	72	10, 1	288	72	7, 0	252
76	4, 9	284	76	7, 9	284	76	7, 0	256
80	3, 5	280	80	5, 7	280	80	7, 0	260
84	2, 1	276	84	3, 4	276	84	6, 9	264
88	— 0, 7	272	88	— 1, 2 —	272	88	6, 8	268
92	+ 0, 7	268	92	+ 1, 2 +	268	92	6, 7	272
96	2, 1	264	96	3, 4	264	96	6, 6	276
100	3, 5	260	100	5, 7	260	100	6, 4	280
104	4, 9	256	104	7, 9	256	104	6, 2	284
108	6, 3	252	108	10, 1	252	108	5, 9	288
112	7, 6	248	112	12, 3	248	112	5, 5	292
116	8, 9	244	116	14, 4	244	116	5, 2	296
120	10, 1	240	120	16, 4	240	120	4, 9	300
124	11, 3	236	124	18, 3	236	124	4, 5	304
128	12, 5	232	128	20, 1	232	128	4, 1	308
132	13, 5	228	132	22, 0	228	132	3, 8	312
136	14, 5	224	136	23, 6	224	136	3, 3	316
140	15, 5	220	140	25, 1	220	140	2, 8	320
144	16, 4	216	144	26, 5	216	144	2, 4	324
148	17, 2	212	148	27, 8	212	148	1, 9	328
152	17, 9	208	152	29, 0	208	152	1, 4	332
156	18, 5	204	156	30, 0	204	156	1, 0	336
160	19, 0	200	160	30, 8	200	160	— 0, 4 +	340
164	19, 5	196	164	31, 5	196	164	+ 0, 0 —	344
168	19, 8	192	168	32, 1	192	168	0, 3	348
172	20, 1	188	172	32, 5	188	172	0, 7	352
176	20, 2	184	176	+ 32, 7 +	184	176	1, 3	356
180°	20, 3	180°	180°	+ 32, 8 +	180°	180°	+ 1, 8 —	360°

GOTHAE, typis REYHERI.

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BSB Bayerische StaatsBibliothek
MDZ Münchener DigitalisierungsZentrum Digitale Bibliothek

Lindenau, Bernhard August <<von>>,

Investigatio nova orbitae, a Mercurio circa solem descriptae

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